Exhibit 43

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF NEW YORK

BLACK LOVE RESISTS IN THE RUST by and through MARIELLE SHAVONNE SMITH and CHARIS HUMPHREY on behalf of its members; SHAKETA REDDEN; DORETHEA FRANKLIN; TANIQUA SIMMONS; DE'JON HALL; JOSEPH BONDS; CHARLES PALMER; SHIRLEY SARMIENTO; EBONY YELDON; and JANE DOE, individually and on behalf of a class of all others similarly situated;

Plaintiffs,

v. Civil No.: 1:18-cv-00719-CCR

CITY OF BUFFALO, NY; BYRON B. BROWN, Mayor of the City of Buffalo, in his individual and official capacities; BYRON C. LOCKWOOD, Commissioner of the Buffalo Police Department, in his individual and official capacities; DANIEL DERENDA, former Commissioner of the Buffalo Police Department, in his individual capacity; AARON YOUNG, KEVIN BRINKWORTH, PHILIP SERAFINI, ROBBIN THOMAS, UNKNOWN SUPERVISORY PERSONNEL 1-10, UNKNOWN OFFICERS 1-20, each officers of the Buffalo Police Department, in their individual capacities.

Defendants.

DEFENDANTS' EXPERT DISCLOSURE

Pursuant to Federal Rule of Civil Procedure 26(a)(2)(B), Defendants hereby submit the following expert reports:

1. Dr. David Banks, Ph.D. and
2. Steven Nigrelli.

Dated: Buffalo, New York
July 31, 2024

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CERTIFICATE OF SERVICE

I hereby certify that on July 31, 2024, the above Expert Disclosure was filed with the Clerk of the Court and served in accordance with the Federal Rules of Civil Procedure, and/or the Western District's Local Rules, and/or the Western District's Case Filing Rules & Instructions upon all counsel registered through the ECF System.

/s/ Peter A. Sahasrabudhe
Peter A. Sahasrabudhe

Expert Witness Rebuttal Report of David Banks

1. Qualifications and Background: I am a Professor of the Practice of Statistics in the Department of Statistical Science at Duke University. I have a PhD in Statistics from Virginia Tech, MS degrees in both Statistics and Applied Mathematics from Virginia Tech, and bachelor's degrees in Mathematics and Anthropology from the University of Virginia.

2. Prior to joining Duke University, I was at the University of California Berkeley, the University of Cambridge, and Carnegie Mellon University. I spent six years in the federal government, in three different agencies. Most relevantly, I am a former Chief Statistician of the U.S. Department of Transportation. My *curriculum vitæ* is attached as Appendix A.

3. I am a former editor of the *Journal of the American Statistical Association*, my profession's flagship publication. I am the founding editor of *Statistics and Public Policy*. I am currently an associate editor for three statistics journals. I am a former director of the Statistical and Applied Mathematical Sciences Institute. I am a Fellow of the American Statistical Association, the Institute of Mathematical Statistics, the Royal Statistical Society, and the American Association for the Advancement of Science. I have published more than 107 peer-reviewed papers, co-authored eight monographs, and edited nine volumes.

4. I have previously testified in one case concerning discrimination in traffic citations allegedly issued by deputies in Alamance County, NC. I have been deposed in two other cases and I have provided statistical consulting on ten others. None but the case in Alamance County concerned discrimination in traffic policing.

5. I am currently compensated at the rate of $400/hour. My compensation does not depend upon the conclusions that I reach nor the outcome of this case.

6. To form the opinions described in this report, I have used the following data sets: the incidents_censusid.dta file used by Professor Bjerk (Exhibit A), the TraCS_data_clean.dta file used by Professor Bjerk (Exhibit B), and Strikeforce operations data provided to me by Attorney Cheyenne Freely of Hodgson Russ LLP (Exhibit C).

7. My research focuses upon risk analysis, adversarial risk analysis, human rights data, text networks, social networks, agent-based modeling, computational advertising and other areas.

8. Except for the checkpoint siting analysis, Professor Bjerk's work strongly relies upon the assumption that Whites, Blacks, and Hispanics commit traffic infractions at the same rate. But there is substantial evidence which shows that his premise is false. This is not a matter of prejudice---it is a simple fact that different races and ethnicities violate motor vehicle laws in different ways, possibly for factors associated with age, income, and social environment.

9. According to

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7042035/#:~:text=Unadjusted%20national%20crime%20statistics%20from,and%202%25%20were%20American%20Indian

in 2016, among those arrested for Driving Under the Influence, 82% were White, 14% were Black, and 23% were Hispanic. This adds up to more than 100% because the authors do not distinguish White non-Hispanic from White and Black non-Hispanic from Black. I need to prorate the DUIs into White non-Hispanics, Black non-Hispanics, and Hispanic categories.

10. From Census table NC-EST2023-ALLDATA-r-file01 at

    https://www.census.gov/data/tables/time-series/demo/popest/2020s-national-detail.html

    (the first spreadsheet under Monthly Population Estimates by Age, Sex, Race and Hispanic Origin for the United States: April 1, 2020 to July 1, 2023), in 2020 there are 38.0 million adult Hispanics who identify their race as only White in 2020. There are 160.6 million White adults who are not Hispanic, 2.5 million adult Hispanics who identify as Black, and 33.1 million adult Blacks who identify as non-Hispanic. For the Black categories, I include mixed races, on the assumption that a police officer would so identify the DUI driver.

    Therefore, there are 38.0 + 160.6 = 198.7 million adults who identify as White (accumulating the roundoff), and there are 2.5 + 33.1 = 35.6 million adults who identify as Black or Black with other races.

    Using Professor Bjerk's assumption that race/ethnicity does not affect the rate of DUI infractions, then, from section 9, the percentage of DUI tickets issued to non-Hispanic White drivers is 82 * (160.6/198.7) = 66.3% and the percentage of DUI tickets issued to non-Hispanic Black drivers is 14 * (33.1/35.6) = 13.0%. With Hispanics, this totals to 102.3%, indicating that either Professor Bjerk's assumption is not sound or that the Census categories are not reliably assigned to this application.

    Nonetheless, from section 9, we want the total percentage of DUI tickets to be 82% + 14% = 96%. Multiplying the percentages by 0.9204 achieves that balance while adhering to Professor Bjerk's assumptions as closely as arithmetic allows. Therefore, I work with 61.03% citations going to White non-Hispanic drivers, 11.97% going to Black non-Hispanic drivers, and 23.00% going to Hispanic drivers.

11. The next step is to control for the number of miles driven. According to Raifman and Choma (2022, Table 3), White non-Hispanics drove 20,000 hundred million miles (HMMs) in light utility vehicles in 2017, while Black non-Hispanics drove 2,800 HMMs and Hispanics drove 4,800 HMMs. We now calculate the DUI ticketing rate per HMMs driven for White non-Hispanics, Black non-Hispanics, and Hispanics.

The calculation can be done abstractly, but it is easier to conceptualize if we imagine that there were 1 million DUI citations in 2017. Of those, 609,600 go to White non-Hispanic drivers, 120,350 go to Black non-Hispanic drivers, and 230,000 go to Hispanic drivers.

White non-Hispanic drivers got 609,600 DUI citations for 20,000 HMMs, or 30.51 per HMM. Black non-Hispanic drivers got 120,350 citations for 2,800 HMMs, or 42.75 per HMM. Hispanic drivers got 47.92 per HMM. These are large disparities that indicate differences in DUI rates by race and ethnicity, with White non-Hispanic drivers being notably less likely to receive a DUI citation. For the sample sizes involved, all of these differences are highly statistically significant.

12. Professor Bjerk's assumption of equal traffic violation rates across racial and ethnic groups is not supported by the data.

13. Raifman and Choma (2022, p. 164) also compare traffic fatality rates in urban areas by race and ethnicity, using data from the NHTSA's FARS database. They find that the number of fatalities per HMMs driven in light utility vehicles is 0.92 for Black people, 0.59 for Hispanic people, 0.45 for White people, and 0.16 for Asian people. This difference in fatality rates suggests different kinds of driving habits between those populations, and that Blacks and Hispanics are less safe. Being less safe suggests reckless driving or other kinds of infraction.

14. From a study of speeding on the New Jersey Turnpike, there is additional evidence that different races speed with frequencies. This also undercuts Professor Bjerk's argument.

    "This research surveyed drivers on the New Jersey Turnpike and produced benchmark distributions reflecting these two populations. Benchmark values then were compared to police stops collected from State Troopers patrolling the Turnpike. The results revealed that the racial make-up of speeders differed from that of nonspeeding drivers and closely approximated the racial composition of police stops. Specifically, the proportion of speeding drivers who were identified as Black mirrored the proportion of Black drivers stopped by police. This finding may explain the differences found between police stop rates and regional census data that are often interpreted as evidence of racial profiling." Lange, Johnson and Voas, 2005.

15. According to comments in the Overview at

    https://ucr.fbi.gov/crime-in-the-u.s/2019/crime-in-the-u.s.-2019/topic-pages/tables/table-43

    in 2019 "Of all adults arrested in 2019, 69.9 percent of all individuals arrested were White, 26.1 percent were Black or African American, and 4.0 percent were of other races." Also, "Of adult arrestees for whom ethnicity was reported, 18.8 percent were Hispanic or Latino."

16. From

    https://www.census.gov/library/stories/2021/08/united-states-adult-population-grew-faster-than-nations-total-population-from-2010-to-

2020.html#:~:text=In%202020%2C%20the%20U.S.%20Census,from%20234.6%20million%20in%202010.

there were 258.3 million adults in the US in 2020. From section 9, 199.8/258.3 = 0.774 is the proportion of the US adult population that are White, 35.6/258.3 = 0.138 is the proportion that are Black, and (38.1 +2.4)/258.3 = 0.157 is the proportion who are Hispanic.

Making the comparison in terms of percentages, 69.9% of adult arrests were White, but 77.4% of the US adult population is White. Also, 26.1% of adult arrests are Black, but the adult Black population is 13.8% of the country, so the arrest rate is twice what Professor Bjerk would expect. The Hispanic data in the FBI file seems less certain, but 18.8% of adult arrests were reported as Hispanic, compared to 15.7% of the population being Hispanic. Given the sample sizes involved, all these differences are highly statistically significant.

17. Many of the arrests discussed in section 16 did not involve traffic violations, of course. Nonetheless, it clearly shows that it is incorrect to assume that all races and ethnicities commit crimes at the same rate.

FBI data from 2019 summarized in the Overview on

https://ucr.fbi.gov/crime-in-the-u.s/2019/crime-in-the-u.s.-2019/topic-pages/tables/table-43

show racial and ethnic disparities in other kinds of crime, such as murder, rape and armed robbery. These results probably take us too far afield from the traffic citations at the center of this case. Nonetheless, it underscores my point that Professor Bjerk is wrong to assume that crime is race-blind or ethnicity-blind.

Nationally, I know of no dataset that breaks out the true rate of minor traffic infractions by race or ethnicity. Such data collections track major outcomes, such as DUIs or fatalities. But one can reasonably conjecture reasons why minor infractions might have different rates in different populations. For example,

- The Hispanic population in the US is significantly younger than the non-Hispanic White and non-Hispanic Black populations. In 2020 in the US, the median Hispanic age was 30.0 and the median non-Hispanic age was 40.1 (Peña et al., 2023). Empirically, younger drivers are more likely to commit moving violations (cf. Fig. 2, NHTSA, 2023).
- To the extent that minority communities are less affluent, members may postpone automobile inspections, bald tire replacement, repair of broken taillights, and other necessary maintenance, leading to more citations.
- If people who are minorities feel that traffic enforcement discriminates against them because of race or ethnicity, then they are incentivized to purchase heavily tinted windows so that police cannot discern their minority status. Heavily tinted windows are an infraction.

18. There is a vast body of peer-reviewed literature which shows that there are large racial and ethnic disparities in the rates at which traffic citations are issued, in essentially every state, county, and municipality in the US. Either every community is guilty of systemic racism in traffic enforcement, or there are real differences in driving behavior by race and ethnicity. The latter conclusion is supported by the DUI and fatality analyses reported in sections 11 and 13.

    "Substantively, we also document that across hundreds of police agencies in annual reports dating from the 1990s to present, racial disparities are not only large, but that they are virtually ubiquitous across the country." Baumgartner et al., 2017.

    "Typically, studies of racial profiling illustrate that Blacks and other racial minorities are more likely than Whites to be stopped; that they are especially more likely to be stopped for minor traffic violations as well as for nondriving traffic violations such as vehicle defects, license and registration checks, and other traffic offenses; that they are more likely to be searched after being stopped; and, in some cases, that they are more likely to be ticketed and/or arrested (Barlow & Barlow, 2002; Batton & Kadleck, 2004; Bostaph, 2007; Buerger & Farrell, 2002; Engel & Calnon, 2004; Gross & Barnes, 2002; Harris, 1999; Lamberth, 1997; Langan, Greenfeld, Smith, Durose, & Levin, 2001; Lundman, 2004; Meehan & Ponder, 2002; Peruche & Plant, 2006; Petrocelli, Piquero, & Smith, 2003; Romero, 2006; Schafer, Carter, Katz-Bannister, & Wells, 2006; Tomaskovic-Devey, Wright, Czaja, & Miller, 2006; Warren, Tomaskovic-Devey, Smith, Zingraff, & Mason, 2006)." Roh and Robinson, 2009.

19. Racism exists---Payton Gendron is an extreme example, but others differ only in degree. In principle, I would not be surprised to learn that some police officers practice discriminatory ticketing. But to assume that any disparity in policing outcomes is ipso facto proof of system-wide prejudice is premature. By that reasoning, essentially every jurisdiction in the United States would be culpable. In contrast, as sections 11, 13, 14, 16 and 17 show, there is ample evidence that different demographics violate different laws at different rates.

20. This section does not speak directly to Professor Bjerk's analysis, but it casts light on how the Strikeforce enforcement protocols appeared to operate. In the Buffalo census tracts in 2014, there was a total of 33,178 citations, of which Strikeforce officers issued 14,908 (44.93%) and non-Strikeforce officers issued 18,270 (55.07%). Multiple citations were often issued per incident, and there were 15,071 incidents in 2014. Strikeforce officers accounted for 6,010 incidents (39. 88%), while non-Strikeforce officers accounted for 9,061 incidents (60.12%). So Strikeforce officers issued citations at a rate of 2.48 citations per incident, while non-Strikeforce officers issued citations at a rate of 2.02 per incident. (This analysis used data from Exhibits B and C.)

21. Professor Bjerk's report contains a section entitled Analysis of Racial Disparities in Citations Across Neighborhoods (beginning on p. 50). I believe his analysis overlooks the most significant feature of this dataset.

I did not have time to review the data for all of the years covered in the complaint, so I focused upon 2014, because it is near the middle of the period in which Strikeforce operated and seems to be typical in terms of the numbers of citations issued, as indicated by Fig. 1 in Professor Bjerk's report (p. 21). The heatmap in Figure 1 shows that in 2014, the largest number of Strikeforce citations were issued in a single census tract, tract 36029003600, with 2673 citations.

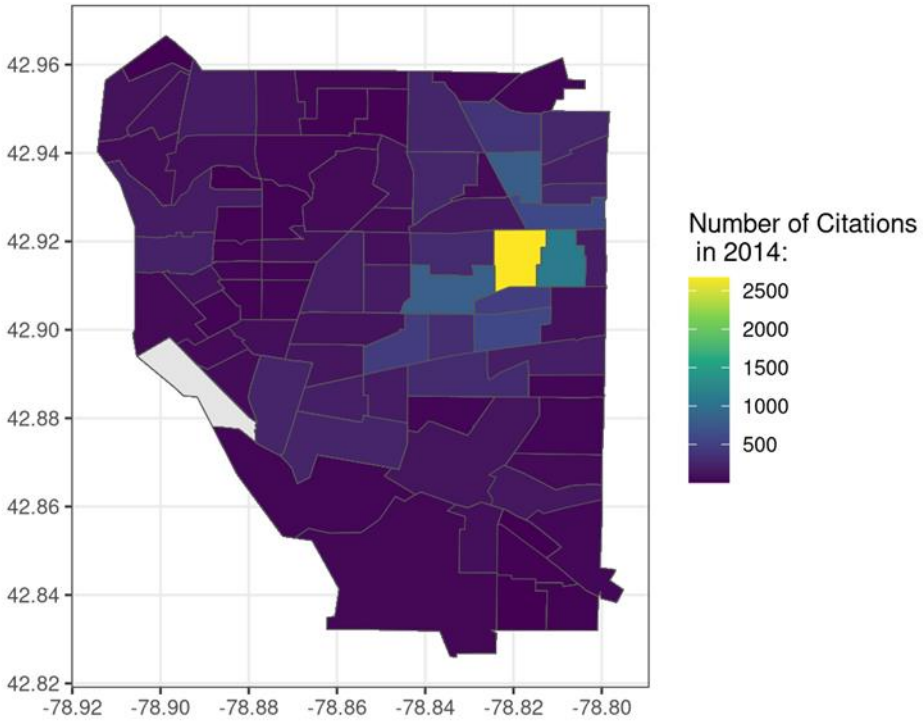

Figure 1: Heatmap of Strikeforce citations in 2014.

In 2013, tract 36029003600 was the 18th worst out of the 79 tracts in Buffalo in terms of violent crime, and the 28th worst in terms of property crime (Exhibit A). As seen in Table 1, tract 36029003600 ranks 20th among the 79 Buffalo tracts in terms of its proportion of minority residents (Exhibit B). If one looks at the proportion of violent crimes out of all crimes in the same tract, it was the 16th worst tract. And if one looks at the proportion of property crimes in a tract compared to all crimes in the same tract, it is the 64th tract. (This heatmap uses Exhibits A, B and C, and the 'get_acs' function from the 'tidycensus' package in R to get shapefiles for the census tracts.)

22. I do not know why tract 36029003600 received so many citations in 2014. It does not appear to be a response to the crime rate in 2013, since other tracts, with greater rates of problematic crime, did not receive comparable numbers of citations.

The information in section 21 does not square with Professor Bjerk's theory that the City of Buffalo engages in systemic discrimination in terms of vehicle citations. The aggressive

enforcement in tract 36029003600 is not plausibly associated with minorities, since it is only the 20th most minority tract. And the aggressive enforcement is not plausibly explained by the crime rate in the preceding year, since the tract does not stand out as the most crime-ridden tract in Buffalo.

One could speculate that there may be some police officers whose patrol beat centers on tract 36029003600 and who like to write many, many citations. It is even possible that they would target minorities, but I have no evidence to that effect. If it were true, it still would not indicate a system-wide policy of discrimination by the Buffalo police department.

23. Table 1: A display of the 2014 citation counts for the 20 census tracts with the largest proportions of minority residents. Tract 36029003700 is an outlier. Tract 36029003600 is a super-outlier (from Exhibits B and C).

Rank	Tract	# Citations	Proportion Minority
1	36029004402	284	0.974
2	36029003400	295	0.965
3	36029016600	464	0.947
4	36029003500	818	0.946
5	36029001402	203	0.943
6	36029003901	62	0.942
7	36029004401	210	0.929
8	36029003301	84	0.919
9	36029016800	194	0.919
10	36029003100	110	0.913
11	36029004200	786	0.906
12	36029017000	154	0.899
13	36029001500	171	0.898
14	36029003800	181	0.897
15	36029004100	586	0.894
16	36029002502	126	0.891
17	36029003302	179	0.874
18	36029003700	1109	0.872
19	36029004001	261	0.853
20	36029003600	2673	0.845

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Appendix A

Curriculum Vitæ of David Banks

July 27, 2024

DAVID L. BANKS

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EDUCATION:

1979 - 1984	Virginia Polytechnic Institute and State University, Blacksburg, Virginia Statistics Ph.D., May 1984. Dissertation: *Nonparametric Bayesian Inference* Advisors: I. J. Good and D. R. Jensen Applied Mathematics M.S., June 1982. Statistics M.S., July 1980.
1973 - 1977	University of Virginia, Charlottesville, Virginia Majors: Anthropology, Mathematics. B.A. June, 1977 (*cum laude*).

EMPLOYMENT:

July 2003 - present	Professor of the Practice, Department of Statistical Science Duke University, Durham, North Carolina
Jan. 2018 - Sept. 2021	Director, Statistical and Applied Mathematical Sciences Institute Research Triangle Park, North Carolina
Feb. 2002 - June 2003	Special Assistant to the Director of the Office of Biostatistics Center for Biologics Evaluation and Research U.S. Food and Drug Administration
June 1999 - Feb. 2002	Chief Statistician and Director of the Office of Advanced Studies U.S. Department of Transportation
June 1997 - June 1999	Mathematical Statistician, Statistical Engineering Division National Institute of Standards and Technology
June 1993 - May 1997	Associate Professor, Department of Statistics Carnegie Mellon University
Aug. 1987 - May, 1993	Assistant Professor, Department of Statistics Carnegie Mellon University
Sept. 1986 - July 1987	Visiting Assistant Lecturer, Department of Pure Mathematics and Mathematical Statistics, University of Cambridge.
July 1984 - Aug. 1986	NSF Postdoctoral Research Fellow Department of Statistics, University of California, Berkeley Supervisor: David Blackwell

MONOGRAPHS:

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63. Banks, D., and Levenson, M. (2000). Review of *Advances in Knowledge Discovery and Data Mining*, ed. by U. Fayyad, G. Piatetsky-Shapiro, P. Smyth, and R. Uthurusamy, *Journal of Classification*, **17**, 143-145.

64. Banks, D. (1999). Review of Lad's *Operational Subjective Statistical Methods*, in the *Journal of Classification*, **16**, 141-143.

65. Banks, D. (1998). Numerous short entries for the update of the *Encyclopedia of Statistical Science*.

66. Banks, D., Dashiell, W., Gallagher, L., Hagwood, C., Kacker, R., and Rosenthal, L. (1997). "Software Testing by Statistical Methods," NIST Internal Report #6129.

67. Banks, D. (1997). "Strategies for Superlarge Datasets," (a discussion of three problems with large datasets), in the *Newsletter of the Classification Society of North America*, #50, July 1997.

68. Banks, D. (1997). "The Geometry of Location Estimators," (describes a geometric method to compare location estimators), in the *Newsletter of the Classification Society of North America*, #49, April 1997.

69. Banks, D. (1997). "The Problem of Excess Genius," (clusters of talent in history), in the *Newsletter of the Classification Society of North America*, #48, February 1997.

70. Banks, D. (1996). "Qui Metabarit Ipsos Mensores?" (statistical issues in grading), in the *Newsletter of the Classification Society of North America*, #47, November 1996.

71. Banks, D. (1996). "Bayesian Infants" (a paradox in Bayesian theory), in the *Newsletter of the Classification Society of North America*, #46, October 1996.

72. Banks, D. (1996). "Working Without a Net" (critique of neural net methodology), in the *Newsletter of the Classification Society of North America*, #45, August 1996.

73. Banks, D. (1996). "Questioning Authority" (survey of problems in authorship attribution), in the *Newsletter of the Classification Society of North America*, #44, April 1996.

74. Banks, D. (1996). Review of Wasserman and Galaskiewicz's *Advances in Social Network Analysis*, in *Journal of Classification*, **13**, 356-358.

75. Banks, D. (1993). Review of LePaige and Billard's *Exploring the Limits of the Bootstrap*, *Journal of the American Statistical Association* **88**, 708-710.

76. Banks, D. (1991). *The Pittsburgh Chapter of the American Statistical Association*.

77. Banks, D., Hardwick, J., Altman, N., Owen, A., Legér, C., and Stukel, T. (1991). "New Researchers Survival Guide," Institute for Mathematical Statistics, Hayward, CA.

78. Banks, D. (1990). Review of Bernhard Flury's *Common Principal Components and Related Multivariate Models*, in *The New York Statistician*.

79. Banks, D. (1990). Review of Peter Sprent's *Applied Nonparametric Statistical Methods*, *Journal of the American Statistical Association*, **85**, 264.

80. Banks, D. (1989). Review of *The Beauty of Fractals* by Peitgen and Richter, and *The Science of Fractal Images*, edited by Peitgen and Saupe, in *Chance*, **2**, p. 47-49.

81. Banks, D. (1988). Review of *Design, Data and Analysis*, edited by Colin Mallows, *Journal of the American Statistical Association*, **83**, 1214.

82. Banks, D. (1988). Discussion of "The Interface Between Statistics and the Philosophy of Science," by I.J. Good, *Statistical Science*, **3**, 404-406.

83. Banks, D., and Young, G. A. (1987). Comment on "What is Projection Pursuit?" by M. C. Jones and R. Sibson, *Journal of the Royal Statistical Society, Series A*, **150**, 23-24.

PROCEEDINGS PAPERS:

1. Stangl, D., Banks, D., House, L., and Reiter, J. (2006). "Progressive Mastery Testing: Does It Increase Learning and Retentions? Yes and No." *Proceedings of ICOTS 7*, www.stat.auckland.ac.nz/~iase/publications/17/C315.pdf.

2. Lott, J., Scheuren, F., Keller, J., and Banks, D. (2004). "From Survey Data to Multiple Types of Data in Historical and Real Time," in *Proceedings of the Government Statistics Section of the American Statistical Association*.

3. Levy, P. S., Burke, B. J., Eyerman, J., Banks, D., Schwartz, B., and Wortley, P. (2004). "Statistical Methods Applicable to Bioterrorism Prevention and Damage Control," International Chinese Association of Quantitative Management, *Proceedings of The First Sino-International Symposium on Probability, Statistics, and Quantitative Management*, Taiwan, pp. 1-19.

4. Champaneri, A., and Banks, D. (2002). "Data Quality in Federal Statistics," in *Proceedings of Government Statistics Section of the American Statistical Association*.

5. Shannon, W., Banks, D., Janikow, C., and Mozolewski, T. (2001). "Computer-Intensive Methods in Classification," *Bulletin of the International Statistical Institute 53rd Session Proceedings*," Book 2, 487-490.

6. Banks, D., Contrino, H., McGuckin, N., and Crutcher, B. (2001). "Recursive Partitioning Regression Analysis of Transportation Data," in *Proceedings of NATMEC-2000*.

7. Banks, D., Contrino, H., and McGuckin, N. (2000). "Data Fusion in Surveys by Recursive Partitioning Regression," *Proceedings of the International Association for Travel Behavior Research: 2000*, 89-98.

8. Banks, D. (2000). "Strategies for Data Mining," *Proceedings of the Fifth Annual U.S. Army Conference on Applied Statistics*, 87-96

9. Banks, D., and Kapatou, A. (1999). "Design of Cost-Effective Experiments," *Proceedings of the American Statistical Association Section on Quality and Productivity*.

10. Banks, D. (1999). "The Collision of Government, Ethics, and Statistics," *Proceedings of the American Statistical Association Section on Social Statistics*, 167-172.

11. Banks, D., and Eberhardt, K. (1999). "Equating Laboratories: Modeling and Analysis," *Proceedings of the 16th IEEE Instrumentation and Measurement Technology Conference*, **2**, 1099-1104.

12. Banks, D. (1998). "Testing Random Number Generators," *Proceedings of the Statistical Computing Section of the American Statistical Association*, 102-107.

13. Banks, D., Yen, J., Gallagher, L., Hagwood, C., and Rosenthal, L. (1998). "Software Testing: Protocol Comparison," in the *Proceedings of the Eleventh International Software Quality Week*, Section 8, 2-19.

14. Banks, D., and Olszewski, R. (1997). "Estimating Local Dimensionality," *Proceedings of the Statistical Computing Section of the American Statistical Association*, 177-182.

15. Shannon, W., and Banks, D. (1997). "A Distance Metric for Classification Trees," *Proceedings of the 1997 Conference on Artificial Intelligence and Statistics*, 83-88.

16. Banks, D., Olszewski, R., and Maxion, R. (1995). "Comparing Methods for Nonparametric Regression," *Proceedings of the Statistical Computing Section of the American Statistical Association*, 136-141.

17. Banks, D., and Lavine, M. (1992). "The Minimal Spanning Tree for Nonparametric Regression and Structure Discovery," *Computing Science and Statistics*, Vol. 24, 370-374.

18. Banks, D., and Carley, K. (1992). "A Linear Model for Graph-Valued Random Variables," *Proceedings of the Social Statistics Section of the American Statistical Association*, 174-179.

19. Banks, D., and Spirer, H. (1990). "A New Statistical Strategy for Assessing Human Rights Change," in *Proceedings of the Social Statistics Section of the American Statistical Association*, p. 146-151. Reprinted in *Papers on Human Rights*, ed. by N. d. Bivings, American Statistical Association, p. 26-31.

20. Banks, D. (1989). "Bayesian Sieving," *Proceedings of the Statistical Computing Section of the American Statistical Association* 128-134.

21. Banks, D., and Spirer, H. (1989). "New Human Rights Patterns," in the *Proceedings of the Social Statistics Section of the American Statistical Association*, 320-325. Reprinted in *Papers on Human Rights*, ed. by N. d. Bivings, American Statistical Association, p. 20-25.

22. Banks, D. (1985). "Patterns of Oppression: A Statistical Analysis of Human Rights Data," *Proceedings of the Social Statistics Section of the American Statistical Association*, 154-162. Reprinted in *Papers on Human Rights*, ed. by N. d. Bivings, American Statistical Association, p. 32-40.

HONORS AND AWARDS:

- ASA Social Statistics Section Distinguished Scholar Award, 2024.

- Schucany Lecture, Southern Methodist University, 2024.
- Deming Lecture at the Joint Statistical Meetings, 2022.
- *Statistics and Probability* Outstanding Associate Editor Award, 2022.
- Fellow of the American Association for the Advancement of Science, 2021.
- William Sealy Gosset Lecture, World Statistics Congress, Kuala Lumpur, 2019.
- Recipient of the North Carolina Chapter of the American Statistical Association award for outstanding statistician, 2018.
- My book, *Adversarial Risk Analysis*, with David Ríos Insua and Jesus Rios, won the 2018 De Groot Award.
- Recipient of ASA Founder's Award, 2015. (The highest award made by the American Statistical Association.)
- Winner (among several others) of the LinkedIn Economic Graph Challenge, 2015.
- Elected as Fellow of the Institute of Mathematical Statistics, 2012.
- Roger Herriot Award for innovation in federal statistics programs, 2003 (presented by the Washington Statistical Society and the ASA Section on Government Statistics).
- President's Award from the Washington Statistical Society, 2002-2003, for work in statistical aspects of counterterrorism.
- Service award from the U.S. Food and Drug Administration, for analysis of adverse event data in vaccines, 2003.
- Reward and Recognition Certificate from the U.S. Food and Drug Administration, for research on counterterrorism, 2002.
- Elected as Fellow of the American Statistical Association, 2001.
- U.S. DOT Secretary's Gold Medal Certificate for Outstanding Achievement, given for participation in and help to establish a DOT education program. The award was shared by the Garret Morgan educational outreach team, 2000.
- U.S. DOT Secretary's Award for "creating a series of Performance Plans and a Performance Report acclaimed by many as the best in government." The award was shared by the GPRA Report team, 2000.
- Biometrics Society award for best student paper, 1984.
- Cunningham Fellowship for statistical research, Virginia Polytechnic Institute and State University, 1982-1983.

PROFESSIONAL OFFICES:

- Elected member of the Steering Committee of Section U of the American Association for the Advancement of Science, and its Nominations and Leadership Development Chair (2024).
- Chair, International Society for Bayesian Analysis section on Industrial Statistics, 2023-2024.
- Chair, American Statistical Association Text Analysis Interest Group, 2022.
- Program Chair Elect and Program Chair, Social Science Section of the American Statistical Association, 2019-2021.
- Council Member, International Society for Bayesian Analysis, 2016-2018.
- Program Chair of the Industrial Statistics Section of the International Society for Bayesian Analysis, 2014-2015.
- Chair-elect and Chair of the International Society of Business and Industrial Statistics, 2013-2017.
- Committee on Publications representative to the American Statistical Association Board of Directors, 2012-2014.
- Chair, American Statistical Association Transportation Statistics Interest Group, 2012-2013. Member of the executive committee, 2014-2022.
- Chair, American Statistical Association Section on Statistical Learning and Data Mining, 2013.
- Chair, International Statistical Institute Committee on Risk Analysis, 2011-2013.
- Program Chair, International Society for Business and Industrial Statistics, 2011-2013.
- Council of Sections representative to the American Statistical Association Board of Directors, 2008-2010.
- Chair of the American Statistical Association Section on National Defense and Security, 2008.
- Chair of the American Statistical Association Section on Risk Analysis, 2005.
- Representative to the Council of Sections for the American Statistical Association, for the Section on Statistics in Defense and National Security, 2004-2005.
- Program Chair for the American Statistical Association Section on Risk Analysis, 2003.
- President of the Classification Society of North America, 2000-2002.
- Secretary of the International Federation of Classification Societies, 1997-2001. Re-elected through 2005. Elected as an Additional Member of the IFCS Council, 2005 to 2008.
- Board member of the Classification Society of North America, 1996-1999.
- Secretary of the Pittsburgh Chapter of the American Statistical Association, 1989-1991.

EDITORIAL WORK:

- Associate Editor, *Harvard Data Science Review*, 2019-present.
- Series Editor, Springer Series in the Data Sciences, 2018-present.
- Editorial Board, *Journal of Statistical Theory and Practice*, 2018-present.
- Co-Editor of *Statistical Surveys*, with Richard Lockhart, Ranjan Maitra, Wendy Martinez, and Sara van der Geer, 2016-2019.
- Guest-Editor, with Alyson Wilson, of a special issue of *Chance*, 2017.
- Advisory Board member, *Observational Studies*, 2015-present.
- Co-Editor, (with Sharon Lohr, Daniel McCaffrey, and Sally Morton) of *Statistics and Public Policy*, 2014. Sole editor for 2015. Associate Editor, 2016-present.
- Guest-Editor, with Xiaotong Shen, of a special issue of *Statistical Analysis and Data Mining: The ASA Data Science Journal*, 2013.
- Member of the editorial board of *STAT*, 2012-2013.
- Guest-Editor, with Prem Goel, of a special issue of *Statistical Methodology* on data mining and machine learning, 2011.
- Associate Editor for *Environmetrics*, 2010-2011.
- Co-Editor and founding editor (with John Rolph, Sally Morton and Dan McCaffrey) of *Statistics, Politics, and Policy*, 2010-2013.
- Guest-Editor, special issue of *Computational and Mathematical Organizational Theory* on dynamic network models (**15**, issue 4, 2009).
- Editor of the *Journal of the American Statistical Association*, Applications and Case Studies; and Coordinating Editor of the *Journal of the American Statistical Association*. 2007-2009.
- Associate Editor, statistics and machine learning segments of `arXiv` (the electronic repository of research papers), 2007-2018.
- Associate Editor, *American Mathematical Monthly*, 2007-2009.
- Associate Editor, *Electronic Journal of Statistics*, 2007-2009.
- Editorial Board, *Journal of Transportation and Statistics*, 2005-2006.
- Editor-in-Chief of *Classification, Cluster Analysis, and Data Mining*, the proceedings of the 2004 meeting of the International Federation of Classification Societies Springer-Verlag, Berlin (with L. House, P. Arabie, F. R. McMorris, and W. Gaul).
- Associate Editor for the *Journal of the American Statistical Association*, Applications and Case Studies section, 2003-2006.
- Associate Editor for *Statistical Methodology*, 2004-2006.

- Guest-Editor, with Grace Shieh, of a special issue of *Statistical Methodology* on bioinformatics.
- Member of the Editorial Board of the ASA-SIAM Series in Statistics and Applied Probability (American Statistical Association and Society for Industrial and Applied Mathematics), 2003-2006.
- Associate Editor of *Chance*, 2001-2006. Organized special issues on authorship attribution, proteomics, and counterterrorism.
- Editor-in-Chief of the *Journal of Transportation and Statistics*, 2000-2001. Associate Editor of this journal from 1999-2000.
- Member of the *CSNA Service* Editorial Board, 1996-2002.
- Co-Editor of the three update volumes of the *Encyclopedia of Statistical Sciences*, 1995-1999.

GRANTS:

- Co-PI on ONR Grant 6000012277 GRA. It is for $358,004 and runs from 2021-2023.
- PI on NSA Grant H98230-20-C-0064 to form an advisory group. It is for $1,207,044 and runs from 2020-2025.
- Co-PI on NRT-HDR: Harnessing AI for Autonomous Material Design, $2,999,525, 2020-2025.
- PI on NSF Grant DMS-1929298 to the Statistical and Applied Mathematical Sciences Institute, $984,968, 2020-2021.
- PI on NSF Grant DMS-1638521 to the Statistical and Applied Mathematical Sciences Institute, 2018-2020.
- PI on NSF Grant 1614593 to support student travel to the International Society for Bayesian Analysis, 2016.
- PI on Laboratory for Analytical Sciences grant to study adversarial risk analysis of threats to civic water systems, $52,000, 2015.
- PI on Laboratory for Analytical Sciences grant to analyze a network of political blogs, $103,000, 2014.
- PI on RTI grant for agent-based modeling, $75,000, 2013-2014.
- PI on MaxPoint Interactive grant for computational advertising, $75,000, 2012-2013.
- PI on NSF Grant DMS-1106817 to study network modeling, for $90,000, 2011-2012.
- PI on grant from the Institute of Homeland Security Solutions, to study Bayesian versions of game theory, IHSS #3831933, for $151,577, 2010-2011.
- PI on NSF Grant DMS-0907439 to study network growth in the Wikipedia ($150,000), 2009-2011.

- Co-PI on NSF/DTRA Grant DMS-0914906 to study syndromic surveillance for bioterrorist threats ($387,428), 2009-2011.
- PI for DARPA Grant to study adversarial risk analysis in convoy routing in Baghdad ($125,850), 2009-2010.
- PI for NSF Travel Grant to support graduate students to attend the Isaac Newton Institute workshops ($15,000), 2007.
- PI for AT&T grant on "Models for Dynamic Network Data," 2006 ($50,000).
- PI for NSF grant on "Social Metrics in the Katrina Aftermath," REC-0555934/REC-0652464, 2005-2006 ($115,000).
- Co-investigator on, and author of, NSF proposal on "Dynamics for Social Networks: Comparing Statistical Models with Intelligent Agents," DMS-0437183/SES-0437239, 2005-2006, awarded to NISS ($388,000).
- Co-PI on NSF proposal "SCREMS: Distributed Environments for Stochastic Computation," 7/1/04-6/30/07, DMS-0422400, awarded to ISDS ($183,000).
- PI on NIST Competency Award on "Bayesian Metrology," 1998-2003 ($2 million).
- NSF Conference Grant for the Classification Society of North America, DMS-9805117 (with P. Bryant and J. Rohlf), 1998 ($15,000).
- PI on NIST Competency Award on "Statistical Issues in Software Reliability," 1997-2002 ($500,000).
- Co-PI on DARPA grant on "INVICTUS: Detection of Unanticipated and Anomalous Events in High-Dimensional, Evolutionary Environments," F30602-96-1-0349 (with Roy Maxion and Daniel Sieworeck, Computer Science), 1996-2002 ($1,483,333).
- PI on NSF grant on "Discovering Information in Large, High-Dimensional Databases," IRI-9224544 (with Roy Maxion, Computer Science, and Andrzej Strojwas, Electrical & Computer Engineering), 1993-1998 ($450,000).
- Co-PI on NSF grant on "Statistical Methods for Conformance Tests in Geometric Toleranc-ing," DDM 9201898 (with Tom Kurfess, Mechanical Engineering) 1993-1995 ($200,000).
- Co-PI on DARPA grant on "Machine Classification of Seismic Events," MDA972-92-J1013 (with Roy Maxion, Computer Science) 1992-1993 ($199,365)
- PI on U.S. Army Innovative Research Grant on "Exact and Asymptotic Bootstrap method-ology," DAAD0404-89-G-0422, 1989 ($25,000).
- Faculty Development Grant, from Carnegie Mellon University, for research on a biograph-ical survey of eminent Victorians, 1988 ($10,000).
- National Science Foundation Postdoctoral Research Fellowship in the Mathematical Sci-ences, National Science Foundation, Washington, D.C., 1984-1986.

EXTERNAL REVIEW:

- Member of the external review committee for the Department of Statistics at Baylor University, April 2024.
- Member of the external review committee for the Department of Statistics at Ohio State University, April 2022.
- Member of the external review committee for the Department of Statistics at Brigham Young University, Oct. 2020.
- Member of the external review panel for the University of New Hampshire's program on data science, Dec. 2-3, 2019.
- Member of the University of California Laboratory Fees Review Panel, Berkeley, Oct. 2017.
- Member of the external review committee, Living Learning Community program, Purdue University, April 2017.
- Chair, external review panel for the Department of Mathematics and Statistics at Old Dominion University, Nov. 2015.
- Member of the external review panel for the University of California Riverside Department of Statistics, Jan. 2015.
- Member of the external review committee for the Department of Statistical Science at Southern Methodist University, March 2012.
- Member of the external review committee for George Washington University's Department of Statistics, Sept. 2010.

PROFESSIONAL SERVICE:

- Served on the Bureau of Justice Statistics Advisory Panel on Human Trafficking, 2024.
- Served on the Leo Breiman Junior and Senior Awards Committee for the ASA Section on Statistical Learning and Data Science, 2023-2024.
- Co-organized workshop on Statistics and Large Language Models for the ASA Section on Text Analysis, the ASA Chapter of New York City, and the Department of Statistics at Columbia University.
- Chair, editor search committee for *Applied Stochastic Models in Business and Industry*, 2023.
- Chair, ASA Text Analytics Interest Group, 2022.
- Member of the ISI Nomination Committee (Victor Abreu, chair), 2021.
- Chair the ISI's new webinar program committee, 2021-2022.
- Serve on the advisory board of the Awesome Data Analytic Global Concept group, which works to build statistical consulting capacity in Africa, 2021-present.

- Member of the Wray Jackson Smith Award Committee, 2021.
- Member of the Joint Statistical Meetings Policy Committee, 2020-2022.
- Member of the International Statistics Institute's Short Course Committee, 2020-2021, representing the International Association of Statistical Computing.
- Member of the Blackwell-Tapia Award Committee, 2020.
- Ex-officio member of the Executive Council of the International Association for Statistical Computing, 2019-2020.
- Member of Committee on the Future of *Chance*.
- Member of the 2019 Search Committee for the Theory and Methods editors of the *Journal of the American Statistical Association*.
- Member of the Steering Committee for the NSF Statistics at the Crossroads workshop.
- Member of the Nominating Committee for Section U of the American Association for the Advancement of Science, 2018-2020.
- Stats+Stories episode 46, "Playing a Risky Game".
- Judge, American Statistical Association Competition on the Police Data Initiative, Nov. 2017.
- Member of the NSF Review Panel on Big Data in Social Science, 2017.
- Chair, Herriot Award Committee for 2017.
- Vice-Chair, Statistics Task Group, Organization for Scientific Area Committees for Forensic Science, National Institute of Standards and Technology (2015-2016), and lead statistician for the Odontology Committee.
- Member of the Scientific Review Committee for the NSERC Canadian Mathematical Sciences Institutes: The Fields Institute, CRM, PIMS, CANSSI and AARMS, Ottawa, March 2014.
- Member of the NSF Review Panel on NSF Postdoctoral Research Fellowships in the Mathematical Sciences, 2011.
- SAMSI working group leader on Sampling, Modeling and Inference, part of the 2010-2011 program on Complex Networks.
- Represented the American Statistical Association in visits to Congress, August 2009.
- Chaired ASA committee to explore development of an electronic portal (April-August, 2009).
- Member, Mortimer Spiegelman Award Committee, 2011-2013.
- Member, Advisory Committee on Student Pro Bono Statistics for the American Statistical Association, 2008-2011.

- Member, Federal Advisory Committee (Board of Scientific Counselors, Homeland Security Subcommittee) to the Environmental Protection Agency 2007-2008.
- Member, nominating committee, International Society for Bayesian Analysis.
- Co-founder, with Jonathan Kurlander, of the Special Interest Group on Statistical Volunteerism within the American Statistical Association, 2007.
- Member of the Advisory Committee for the National Center for Education Statistics survey on "First-Time Beginners in Post-Baccalaureate Education," run by RTI (9/1/04-1/1/06).
- Chair of the ASA President-Elect's Committee on Caring (members were Sue Ahmed, Demissie Alemayehu, Murali Haran, Judy Goldberg).
- Co-Founder of the ASA Section on Statistics in Defense and National Security (with N. Spruill, R. Fricker, and A. Wilson).
- Chair of the ASA Search Committee to find the 2004-2006 editor of the Review section of the *Journal of the American Statistical Association.*
- Member of the ASA Membership Committee, 2004-2006.
- Member of the ASA Risk Section Award Committee, 2003.
- Member of the Panel on Mathematical and Statistical Methods in Counterterrorism, 2002-2003, Army Research Office.
- Member of the review panel on statistical standards for the National Center for Educational Statistics.
- Chair of the ASA Search Committee to find the 2002-2004 editor for *The American Statistician*—we selected James Albert.
- Chair of the Washington Statistical Society's ASA Fellows Committee, 2001-2003, to select nominees from the federal statistics community. We nominated five candidates for 2002, and nine for 2003.
- American Statistical Association designated media contact on transportation safety and mobility, 2001-2004.
- Member of the Committee on Statistical Methodology and Computer Software in Transportation Research (for the Transportation Research Board), 2000-2002.
- Member of the 1999 NSF Panel to evaluate Small Business Innovative Research proposals.
- Member of the 1998 NSF Panel on Probability and Statistics.
- Chair of the ASA Committee on Scientific Freedom and Human Rights, 1994-1996, and member of the committee, 1986-2003.
- Speaker in the COPSS Visiting Lecturer Program, 1994-1996, at Dickinson College and Bucknell University.
- Member of the IMS Committee on New Researchers, 1989-1991.

- Promotion and Tenure Review for faculty on 168 occasions. Acadia University, American University of Beirut, Amherst College, Baylor University (twice), Boston University (thrice), Cambridge University, Carnegie Mellon University (seven times), Clarkson University, Clemson University (twice), Cleveland State University, Colgate University, Colorado School of Public Health, Columbia University, Cornell University, Denison University, Durham University (thrice), Florida State University (twice), George Mason University, George Washington University (four times), Georgia Tech, Harvard University (thrice), Haverford College, Indiana University, Iowa State University (twice), the Johns Hopkins University (twice), Kansas University School of Medicine, Korea Advanced Institute of Science and Technology, Kuwait University, Lancaster University, M.D. Anderson Cancer Center at the University of Texas, the Medical College of Wisconsin, Miami University (thrice), Michigan State University, North Carolina State University, Northwestern University (twice), Oakland University, the Ohio State University (twice), Pennsylvania State University (six times), Purdue University (thrice), Qatar University, Rochester Institute of Technology, Rutgers University (four times), Seoul National University, South Dakota State University, Southern Methodist University, SUNY-Binghamton (twice), SUNY-Buffalo (twice), Swarthmore College, Texas A&M University, Texas State University, Texas Tech University, Tulane University, Thomas Jefferson University, Tsinghua University, the University of Alabama, University of California at Berkeley, University of British Columbia, University of California at Los Angeles (thrice), University of California at Riverside, University of California at Santa Cruz (thrice), the University of Cape Town, the University of Chicago (twice), the University of Cincinnati (seven times), the University of Colorado at Boulder (twice), the University of Colorado at Fort Collins (twice), the University of Connecticut (five times), the University of Georgia (thrice), the University of Illinois at Chicago, the University of Illinois at Urbana-Champaign, the University of Kentucky, the University of Louisville (twice), the University of Maryland (twice), the University of Massachusetts Amherst (twice), the University of Michigan (seven times), the University of Minnesota, the University of New Hampshire, the University of North Carolina at Chapel Hill, the University of North Carolina at Wilmington, the University of Pittsburgh (twice), the University of Pretoria, the University of Rhode Island, the University of South Carolina (twice), the University of Tennessee at Knoxville (twice), the University of Texas at Dallas, the University of Texas at San Antonio, the University of the Sciences (twice), the University of Southampton, University of Southern California, the University of Utah (twice), the University of Virginia (twice), the University of Washington at Seattle (twice), the University of Waterloo, the University of West Florida, the Univesity of Wisconsin-Madison, the University of Wisconsin–Milwaukee, Virginia Tech (four times), the Washington University of St. Louis (twice), the Weizmann Institute, Worcester Polytechnic Institute, and Yale University.

- Referee (sometimes on multiple occasions): Alfred P. Sloan Foundation, American Association for the Advancement of Science, *American Journal of Public Health; American Journal of Epidemiology*; American Mathematical Society; Army Research Office, *American Statistician; Annals of Applied Statistics; Annals of Statistics; Applied Sciences, Australian & New Zealand Journal of Statistics;* Banff International Research Station; *Bioinformatics; Biometrics; Biometrika;* the Canadian Statistical Sciences Institute's Collaborative Research Team program; *Chance; DataCritica: The International Journal of Critical Statistics*; Dependable Computing and Communications Symposium-2005; *Decision Analysis*; Dependable Systems and Networks Conference; *Encyclopedia of Social Measure-*

ment; Envirometrics; Epidemiologic Reviews; European Journal of Operational Research; IEEE Transactions on Dependable and Secure Computing; IEEE Transactions on Information Forensics and Security; the International Federation of Classification Societies; *International Journal of Forecasting; International Journal of Intelligence and Counterintelligence; International Whaling Commission; Journal of the American Statistical Association; Journal of Biopharmaceutical Statistics, Journal of Classification; Journal of Computational Statistics; Journal of Information Retrieval; Journal of Mathematical Psychology; Journal of Mathematical Sociology; Journal of Neuropsychopharmacology; Journal of Official Statistics; Journal of Quality Technology; Journal of Research of National Institute of Standards and Technology; Journal of Risk Analysis; Journal of the Royal Statistical Society, Series A; Journal of the Royal Statistical Society, Series B; Journal of the Royal Statistical Society, Series C; Journal of Statistical Theory and Practice; Journal of Statistics Education; Journal of Theoretical and Computational Acoustics; Journal of Transportation and Statistics; Jurimetrics; Management Science; Law, Probability and Risk*; MATH AMsud; *Mathematical Methods in Statistics; Mathematics for Applications, Methods of Information in Medicine; Metrologia, Metron*; Microsoft Research Fellowship Program; Mitacs Accelerate Internship Program; National Research Foundation of South Africa; National Science Foundation; National Sciences and Engineering Research Council of Canada; National Security Agency; *Naval Research Logistics; Operations Research*; Performance and Dependability Symposium (PDS'05); *Pharmaceutical Statistics; Proceedings of the National Academy of Sciences (USA); PLOS One, Psychological Methods; Psychometrika; Qeios; Risk Analysis; Scientific Data; Soocial Sciences & Humanities Open; Sociological Methods;* Springer-Verlag; *STAT*, *Statistical Analysis and Data Mining*; *Statistics and Public Policy; Statistical Science; Statistics and Computing; Statistics and Probability Letters;* Swiss National Science Foundation; *Symposium on Recent Developments in Tolerancing and Metrology; Technometrics; The American Statistician; Tobacco Control; Transportation Research Part E;* Transportation Research Board; US-Israel Binational Science Foundation; WERB (Washington Editorial Review Board), Wiley Publishers.

Expert review of work done for the Bureau of Transportation Statistics, the Bureau of Alcohol, Tobacco and Firearms, the U.S. Food and Drug Administration, and the Bureau of Justice Statistics.

- Successful Nominations.

  AAAS Fellows: Cate Calder (2023), Hui Zou (2023), Tian Zheng (2024).

  ASA Best Applied Paper: Edo Airoldi and Jonathan Bischof (2016); Sam Kou (2010); Tian Zheng, Matt Salganik, and Andrew Gelman (2008); Chris Genovese and Larry Wasserman (2005).

  ASA Fellows: Mark Vangel, Harvard and Massachusetts General Hospital (1999); Ashish Sen, Director of the Bureau of Transportation Statistics (2000); Demissie Alemayehu, Professor at Columbia (2002); Nell Sedransk, Director of the Statistical Engineering Division at the National Institute of Standards and Technology (2002); Nancy Spruill, Director of Logistics and Testing at the Department of Defense (2003); Marianthi Markatou, Professor of Biostatistics at Columbia University (2004); Michael Lavine, Duke University (2004); Merlise Clyde, Duke University (2005); Wendy Martinez, Office of Naval Research (2006); Emery Brown, Professor at MIT and Harvard (2006); Jim Filliben, Senior Statistician at the National Institute of Standards and Technology (2003); Bin Yu, University of California at Berkeley (2005); David Dunson, National Institute of Environmental and Health

Sciences (2007); Robert Lund, Clemson University (2007); Alyson Wilson, Los Alamos National Laboratory (2008); Dulal Bhaumik, University of Illinois-Chicago (2008); Mark Handcock, University of Washington (2009); Naomi Altman, Pennsylvania State University (2009); Sandrine Dudoit, U.C. Berkeley (2010); Julie Legler, St. Olaf's (2013); Amy Herring, UNC Chapel Hill (2013); Deepak Agarwal, LinkedIn (2014); Tian Zheng, Columbia University (2014); Murali Haran, Pennsylvania State University (2016); Xiaoming Huo, Georgia Tech (2017); Snehalata Hurzurbazar, University of West Virginia (2017); Yan Yu, Unversity of Cincinnati (2018); Peter Hoff, Duke University (2018); Cynthia Rudin, Duke University (2019); Stas Kolenikov, Abt Associates, (2021), Fan Li, Duke University (2022), Abel Rodriguez, University of Washington (2022), Megan Price, HRDAG (2022).

ASA Section on Statistics in Defense and National Security Distinguished Achievement Award: Alyson Wilson (2018).

Biometrics Editor: Donna Ankerst (2015), Chuhsing Kate Hsiao (2020).

Deming Lecturer: Jeff Wu (2012).

IISA Young Researcher Award: Sayan Mukherjee (2008), Surya Tokdar (2017).

IMS Fellows: David Dunson (2010), Gauri Datta (2016), Yufeng Liu (2017), Peter Hoff (2018), Sayan Mukherjee (2018), Cynthia Rudin (2019), Nicole Lazar (2021), Alan J. Izenman (2022), Tian Zheng (2022), Elizabeth Slate (2023), Surya Tokdar (2023), Fan Li (2024), Tamara Broderick (2024), Yuguo Chen (2024).

IMS Medallion Lecture: David Dunson (2018).

Innovation in Statistical Programming and Analytics: Haiyang Huang, Yingfan Wang, and Cynthia Rudin (2024).

ISBA Fellows: Susie Bayarri (2014), Robert Wolpert (2014), David Dunson (2016), Alan Gelfand (2016), Rob Weiss (2020), Bertrand Clarke (2022), Adrian Raftery (2024).

Jerry Sacks Award: Jogesh Babu (2018).

Link Lecture: Jerry Reiter (2022).

Mitchell Prize: Lemos and Sanso (2010).

Mortimer Spiegelman Award: David Dunson (2008), Amy Herring (2012).

Myrto Lefkopoulou Award: David Dunson (2010).

Noether Senior Award in Nonparametrics: Jerry Friedman (2010).

SPAIG Award: National Institute of Statistical Sciences (2005), Laboratory for Analytical Sciences (2017).

Statistical Computing and Graphics Award: Bill Cleveland (2016).

Waller Education Award: Mine Cetinkaya-Rundel (2016).

Wilks Lecture Award: Alan Gelfand (2019).

Youden Award: Alexander Franks, Gábor Csárdi, D. Allan Drummond, and Edoardo M. Airoldi (2015).

CONFERENCE ORGANIZATION:

- Co-organizer of the Statistics and Large Language Models Conference, July 2023.

- Organized an Ingram Olkin Forum webinar on Statistical Methods for Estimating Human Trafficking, March 2023.
- Co-organizer of the Stu Hunter Conference, March 2022.
- Co-organizer of the Blackwell Tapia Conference, Nov. 2021.
- Organized a conference on Computational Advertising for the Banff International Research Station, Oct. 2021.
- Program Chair, Joint Statistical Meetings 2020.
- Co-Organizer, Data Science and Statistical Visualization Conference, 2020.
- Member of the Organizing Committee for the Theoretical Foundation of Deep Learning conference, Oct. 8-10, 2018, at Georgia Tech.
- Organizer, Moral Mathematics Workshop, Kenan Institute for Ethics, May 2016.
- Member, Scientific Program Committee, Quality and Productivity Research Conference 2015 (NCSU).
- Member of the organizing committee for the Games and Decisions in Reliability and Risk conference in Istanbul, June 2015.
- Organized the International Symposium for Business and Industrial Statistics at City University of Hong Kong, Aug. 2013.
- Co-organized (with Bonnie Ray, Milind Tambe and Janusz Marecki) a workshop on Adversarial Decision Making at the Institute for Discrete Mathematics and Applied Computer Science at Rutgers, Sept. 2010.
- Member, Scientific Program Committee, NIPS 2008 Workshop on Analyzing Graphs.
- Member, Scientific Program Committee, International Federation of Classification Societies meeting, 2009.
- Member, Scientific Program Committee, Classification Society of North America meeting, 2009.
- Member, Scientific Programming Committee of the BioSecure meeting, 2008.
- Member, Scientific Programming Committee, Conference on Business Data Mining, 2008.
- Organizer, Quantitative Methods in Defense and National Security Conference, May 2008.
- Co-organizer, Moral Mathematics (a conference on quantitative methods in human rights and development, with Nobel laureate Shirin Ebadi as keynote speaker), with R. Kirk and C. Irving, 2008.
- Co-organizer of the Isaac Newton Institute research program on "Statistical Theory and Methods for Complex, High-Dimensional Data," January-June 2008 (with P. Bickel, P. Hall, and M. Titterington).
- Organizer, SAMSI Workshop on "Risk: Perception, Policies, and Practice," October 2007.

- Program Chair, Institute of Mathematical Sciences, for the 2007 ENAR meeting.
- Chair, organizing committee, Katrina Research Symposium: Social Science Research on the Katrina Aftermath.
- Co-organized, with Bill Shannon and Rob Culverhouse, the joint conference of the Classification Society of North America and the Interface Society, June 2005.
- Co-Organized, with Ed Melnick, a workshop on Statistical Issues in Counterterrorism at New York University, Nov. 2004.
- Co-Chair, with F. R. McMorris, of the 2004 meeting of the International Federation of Classification Societies in Chicago.
- Program Chair for the Conference on Statistical Issues in Counterterrorism, May, 2003.
- Member of the Scientific Program Committee for the 2004 meeting of COMPSTAT.
- Organized workshop on the role of federal statisticians in counterterrorism, sponsored by the Washington Statistical Society and the Committee on National Statistics of the National Academies.
- Program Organizer for FCSM 2001, the biennial conference of the Federal Committee on Statistical Methodology.
- Member of the Program Committee and Local Organizer for the Sept. 1998 meeting of the Drug Information Association meeting on validity of software in clinical trials.
- Program Chair for the 1997 meeting of the Classification Society of North America in Washington, D.C.
- Organizer of invited paper sessions at the International Statistical Institute Meeting (Seoul, 2001; Sydney, 2005; Lisbon, 2007; Durban, 2009; Dublin, 2011; and Rio de Janeiro, 2015, Marakesh, 2017, Kuala Lumpur, 2019, Ottawa, 2023), COMPSTAT'04 (Prague), the Joint Statistical Meetings (Montreal, 2023, Washington D.C. 2022; virtual meeting of 2021; Denver, 2019; Vancouver, 2018; Baltimore, 2017; Chicago, 2016; Seattle, 2015; Boston, 2014; Montréal, 2013; San Diego, 2012; Miami Beach, F2011; Vancouver, 2010; Washington, D.C., 2009; Denver, 2008; Salt Lake City, 2007; Seattle, 2006; Minneapolis, 2005; Toronto, 2004; San Francisco, 2003; New York, 2002; Atlanta, 2001; Indianapolis, 2000; Baltimore, 1999; and Orlando, 1995), the Sixth Conference on Forensic Statistics (Phoenix, 2005), the ASA Winter Meeting (Raleigh, 1995), the Quality and Productivity Research Conference (Raleigh, 2004), ENAR (Pittsburgh, 2004; Tampa, 2003), and the Classification Society of North America (Rutgers, 2006; St. Louis, 2005; Chicago, 2004; Madison, 2002; St. Louis, 2001; Montreal, 2000; Pittsburgh, 1999; Urbana-Champaign, 1998; Denver, 1995; and Pittsburgh, 1993).

SHORT COURSES:

- Short course on data science at the World Statistics Congress in Ottawa, July 2023.
- Short course on deep learning for Astrostatistics Workshop at Penn State, June 2023.

- Short course on data science at the NSF Research Experience for Undergraduates at UNC Greensboro, June 2023.
- Short course on data science at the Conference on Statistics and Data Science, Dec. 2022.
- Short course on deep learning at Astrostatistics workshop, June 2022.
- Short course on data science at UNC Greensboro, June 2022.
- Short course on career development at KAUST, April 2022.
- Short course on data science for the ISI Webinar Series, Feb. 2022.
- Short course on data science for the 3rd Conference on Statistics and Data Science, Oct. 2021.
- Short course on data science for the World Statistics Congress, June 2021.
- Short course on deep learning for the Astrostatistics Workshop, June 2021.
- Short course on deep learning to East China Normal University, 2020.
- Short course on data science at the Joint Statistical Meetings, Aug. 2018.
- Short course on data science at the Conference on Statistical Practice, Feb. 2018.
- Short course on data science at the annual meeting of the Scottish and Northumbrian Statistical Society, Durham, UK, May 2015.
- Short course on adversarial risk analysis, Joint Statistical Meetings, Miami, 2011.
- Short course on metabolomics at the Deming Conference, Atlantic City, Dec. 2010.
- Short course on data mining, International Chinese Statistical Association meeting, June 2010.
- Short course on risk analysis, Rey Juan Carlos University, June 2010.
- Short course on metabolomics, ENAR meeting, March 2010.
- Short course on risk analysis, International Statistical Institute meeting, Durban, August 2009.
- Short course on data mining, Classification Society of North America, Rutgers, May, 2006.
- Short course on data mining, SAMSI, July 2005.
- Short course on data mining, University of Louisville, May 2005.
- Short course on data mining, University of Peradeniya, January 2005.
- Short course on data mining, University of Hyderabad, January 2005.
- Short course on data mining for the Joint Statistical Meetings, Toronto, Aug. 2004.
- Short course on data mining for the KDD-98 conference, Aug. 1998.

- Short course on data mining for the International Federation of Classification Societies meeting, Lisbon, 1999.
- Short course on nonparametric regression, for the annual meeting of the Classification Society of North America, June 1997.

SERVICE TO THE NATIONAL ACADEMIES:

- Speaker in the workshop on Optimizing Investments for Urban Sustainability Infrastructure, July 2022.
- Member, National Academies Panel on Risk Analysis Methods for Nuclear War and Nuclear Terrorism, 2021-2022.
- Chair, National Academies Committee on Approaches to Estimating the Prevalence of Human Trafficking in the United States, Feb.-April 2019.
- Chair, National Academies Panel on Research Gaps in Eyewitness Identification (2015-2016).
- Member, National Academies Committee on Estimating Immigration Flows Across the Border Between the United States and Mexico (2011-2012).
- Member, National Academies Transportation Research Board's Strategic Highway Research Program Technical Coordinating Committee on Safety Research (SHRP-2), 2009-2012.
- Member, National Academies Committee to assess NASA's National Aviation Operational Monitoring Service (NAOMS) project, 2008-2009.
- Alternate Chair, National Academies Committee on Methodological Improvements to the Department of Homeland Security's Biological Agent Risk Analysis, 2006-2007.
- Member, National Academies Advisory Committee to the Department of Homeland Security on Biodefense Analysis and Countermeasures, 2005-2007.
- Member, Planning Committee for the National Academies panel study on Defense Modeling, Simulation, and Analysis: Meeting the Challenge, 2006.
- Member of CATS, the Committee on Applied and Theoretical Statistics at the National Academies, 2003-2006.
- Chair, organizing committee, for the National Academy of Sciences workshop on Mathematical Models for Network Dynamics, 2003.
- Member of the Transportation Research Board's Committee on Statistical Methodology and Statistical Computer Software in Transportation Research, 1999-2002.

SERVICE TO SAMSI:

- SAMSI Director, January 2018 to August 2021.

- Organized and led the 2017 summer program on Transportation Statistics.
- Postdoctoral mentor to Duy Hoang Thai.
- Working group leader of experimental design and body farm studies for the 2015-2016 program on Forensic Statistics.
- Organized (with Refik Soyer and Fabrizio Ruggeri) and led the SAMSI summer program on Games and Decisions in Reliability and Risk, May 2016.
- Working group leader for the agent-based modeling group in the 2013-2014 program on Computational Social Science.
- Organized (with Deepak Agarwal and Diane Lambert) and led a SAMSI summer program on Computational Advertising, August 2012.
- Working group leader on inference, modeling and sampling on networks, for the 2010-2011 program on Complex Networks.
- Working group leader on publication bias, for the 2009 summer program on Psychometrics.
- Organizer of the workshop on "Risk: Perception, Policies, and Practice" for the SAMSI Risk Program, October 2007.
- Local coordinator for the National Defense and Security program year, 2005-2006.
- Working group leader on social network/intelligent agent models for SAMSI year on Latent Variables, 2004-2005.
- Co-leader of the Data Mining Year program at the Statistics and Applied Mathematical Sciences Institute (SAMSI), 2003-2004.
- Member of the SAMSI Local Development Committee, 2003-2007.

SERVICE TO NISS:

- Member of the Ingram Olkin Forum Committee, 2019-present.
- Assistant Director of NISS, 2016-2017.
- Organized a workshop on Agent Based Modeling, November 2008.
- Duke representative to the NISS Affiliates program, 2005-2008.
- Co-organizer of a workshop on risk analysis at Iowa State, October 2005 (with A. Karr and A. Carriquiry).
- Co-organizer of workshop on statistics in metabolomics, July 2005 (with C. Beecher and S. Young)
- Co-organizer of workshop on statistics in national defense, April 2004 (with A. Karr) at the National Institute of Statistical Sciences (NISS).
- Co-organized a workshop on proteomics data, March 2003 (with S. Young).

- Member of the NISS Affiliates Advisory Committee, 2001-2003.

SERVICE TO DUKE UNIVERSITY:

- Director of the FOCUS cluster on Modeling in Economics and Social Science (MESS), 2010-2015, 2016-present.
- Member of Courses Committee of the Arts and Science Council, 2006-2009.
- Colloquium Chair for the Institute of Statistics and Decision Sciences, 2004-2005.
- Representative to the Southern Regional Conference on Statistics, 2003-2006.

SERVICE TO FDA:

- Developed a method for combining statistical risk analysis and game theory to support threat management in the context of bioterrorism.
- Taught a course on Bayesian methods in clinical trials.
- Led project to provide comparative evaluation of four methods for data mining of the Vaccine Adverse Event Reporting Systems (VAERS).
- Established and ran a colloquium series on statistical methods in clinical trials at the Center for Biologics Evaluation and Research.
- Led statisticial review of IND/BLA applications for treating DiGeorge's syndrome, Fabry's syndrome, hypertension, and recurrent ovarian cancer.
- Performed a Bayesian analysis that led to the first drug approval with a warning label based on race.

SERVICE TO DOT:

- Built a research/consulting division in transportation statistics; I supervised thirteen federal employees and three contractors (four GS-15s, five GS-14s, and lesser grades; or nine with a Ph.D. and five with a M.S., most in statistics or economics) and administered a budget of $5.2 million.
- As Chief Statistician, I was program manager for projects in safety data, data quality, air-traffic delay, motor carrier safety, racial profiling, and additional initiatives. I led the planning and implementation of the 2001 National Household Travel Survey.
- Head, U.S. delegation to the United Nations Working Party on Transport Statistics.
- Started program to fund up to $500,000 in transportation statistics research each year.
- As Editor-in-Chief of the *Journal of Transportation and Statistics*, I recruited articles and associate editors to strengthen the statistical content of the publication.
- Organized invited sessions on transportation statistics at the Joint Statistical Meetings in 2000 and 2001, and at the Spring Research Conference in 2000.

- Advised U.S. D.O.T. lawyers on statistical issues that affect agency work.
- Organized workshop on statistical issues in the Government Performance Results Act, and helped to secure the Department of Transportation's standing as a leader in performance management among federal agencies.
- Provided consulting support to the Office of Motor Carrier Safety, the Federal Aviation Administration, the Federal Transit Administration, the Federal Highway Administration, and various groups within the Bureau of Transportation Statistics.
- Supported projects to improve the quality of safety data statistics, establish an intermodal transportation database, perform the ATS/NPTS surveys, and ensure accurate information in the DOT performance measures report to Congress.
- Represented the Bureau of Transportation Statistics to COPAFS, FCSM, CATS, and other federal and professional committees.

SERVICE TO NIST:

- Organized conference on Computerized System Reliability in Clinical Research, held at NIST on September 28-29, 1998 (with Gene Miluk, Software Engineering Institute and William Woods, Neuroclinical Trials Center).
- Won competency funding for Bayesian Metrology (with Hagwood, Kacker, Levenson, and Vangel).
- Supervised statistical certification of the DoD draft lottery, June 1998 (with Gill and Levenson).
- Chair of the Colloquium Committee for the Statistical Engineering Division.
- Led development team on NAIVE (Network Anomaly/Intrusion Visualization and Exploration), Sept. 1997-Dec. 1998.
- Organizer of the NIST Workshop on Visualization and Testing in Intrusion Detection, Nov. 24, 1997.
- Won competency funding for Statistical Methods for Software Testing (with Rosenthal and Kuhn).

SERVICE TO CARNEGIE MELLON UNIVERSITY:

- Colloquium Chair for Department of Statistics, Carnegie Mellon University, 1987-1989 and Spring 1994, for the Bayesian Computation Seminar series, 1987-1988, and for the Industrial Statistics Seminar series, 1989-1992.
- Established the De Groot Library for the Department of Statistics, and directed statistics acquisitions for the university library from 1987 to 1997.

- Service on the Curriculum Reform Committee in 1989, the University Task Force on Foreign Graduate Students, 1988-1989, the University Task Force on Foreign Visitors, 1989-1990, the Faculty Senate, 1989-1991, the Honor Code Task Force of the Commission on Undergraduate Education, 1991-1992, and the Undergraduate Academic Advising Award Committee, 1994-1996.
- Chair of the Student Affairs Committee of the Faculty Senate, 1990-1991, and the Metacurriculum Task Force of the Commission on Undergraduate Education, 1991-1992.

MANAGEMENT TRAINING:

At Duke University: The Duke University Course on Financial Accountability for Principal Investigators; Ethical Issues in Non-Medical Human Subjects Research and the Duke IRB.

At the FDA: Statistical Review in Clinical Trials; Case Studies in Drug Approval: Specifications, Stability, and Statistics; Symposia in Clinical Trials; Computer Security—2002 Update; Diversity Management; Promoting Diversity in the Workplace; Ethical Issues in Drug Regulation; Dealing with the Media; Introduction to the U.S. FDA Regulatory Process.

At the U.S. Dept. of Transportation: COTR (Contract Officer Technical Representative) Certification; Advanced COTR; Preventing Sexual Harassment; Ethics; FreeBalance (federal accounting practices and principles); Management Problems of the Technical Person in a Leadership Role; Budget, Accounting, and Estimation Techniques in the Federal Government.

TEACHING:

Co-taught a Coursera MOOC on Bayesian statistics with R.

Duke Courses: Introduction to Statistics (F2003; F2004; S2005; F2005; S2006; F2006, F2007, F2008, S2009, S2010, F2021, S2022). Linear Algebra for Regression (F2022). Graduate course in Data Mining (F2003, F2007, F2009). Junior undergraduate course on Statistics for Engineers (F2011). Statistics for Economists, Engineers and Computer Scientists (S2012, F2012, S2013, F2013, S2014, F2014, S2015, F2015, S2016, F2016, S2017, F2017). Senior undergraduate course on Causal Inference (F2007, F2008, F2010). Graduate Seminar (F2007, F2009). Graduate course on Statistical Inference (S2008). Undergraduate topics course (S2008). Undergraduate FOCUS course (F2009, F2010, F2011, F2012, F2013, F2014, F2016, F2017, F2018, F2019, F2020, F2021, F2022, F2023). Undergraduate independent study on Deep Learning (S2019) Graduate course on Deep Learning (F2019), Graduate course on Predictive Inference (S2021, F2023), Graduate course module on AI in Materials Science (S2022, S2023).

FDA Courses: Bayesian Methods in Clinical Trials (2002).

DOT Courses: Exploratory Data Analysis (2001). Introduction to Statistics (2000).

NIST Courses: New Wave Methods in Nonparametric Regression (1998). Introduction to Statistics for Information Technology (1998). Bayesian Metrology (1998). Statistical Uncertainty: Classical and Bayesian Methods (1998) (with Mark Vangel and Mark Levenson).

Ph.D. Level Courses at Carnegie Mellon: Advanced Nonparametrics (using Hettmansperger

(1984) and Randles and Wolfe (1977)), Computer-Intensive Statistical Methods (using papers on the bootstrap, ACE, AVAS, MARS, etc.), and Advanced Topics in the Linear Model (using Arnold (1981) and Christensen (1987)).

Master's Level Courses at CMU and Cambridge: Data Mining (Lent term, 2008). In 1986-87: Intermediate Statistics (using Casella and Berger, 1990, and, less recently, Bickel and Doksum, 1977), Discrete Multivariate Analysis (using Agresti, 1990, and Whittaker, 1990), Linear Models and Experimental Design (several books, including Graybill (1976), Lindman (1992), Joshi (1987)), Multivariate Analysis (using Morrison (1990)), Survival Analysis (using Miller (1981)), and Statistical Practice, which introduced graduate students to statistical consulting through the analysis of a sample of real problems.

Undergraduate Courses at CMU and Cambridge: Random Processes for Engineers; Quality Control; Statistics and Journalism; Samples, Surveys, and Society; Introductory Statistics for English majors (Freedman, Pisani, Purves, and Adikhari (1992)), engineers (Hogg and Ledolter (1987)), and management majors (Mendenhall (1987) and Moore and McCabe (1992)). The latter course was taught five times; typical enrollments were 220 students.

Undergraduates at Carnegie Mellon rate teaching on a five-point scale; my average scores range between 3.87 and 4.60. I was twice nominated for the Elliot Dunlap Smith Teaching Award.

STUDENTS SUPERVISED:

Ph.D. Students

- Patrick LeBlanc, Ph.D. (May 2023). Dissertation: *Topics in Applied Statistics*. He is now at Corvar.
- Yi Guo (Statistics), Ph.D. (Dec. 2021). Dissertation: *Problems in Computational Advertising*. She is now at Hudson River Trading.
- Derek Owens-Oas (Statistics), Ph.D. (May 2018). Dissertation: *Probabilistic Models for Text Data in Social Networks*. He is now at Toptal.
- Christine Chai (Statistics), Ph.D. (April 2017). Dissertation: *Statistical Issues in Quantifying Text Mining Performance*. She is now at Microsoft.
- Timothy Au (Statistics), Ph.D. (April 2014). Dissertation: *Topics in Computational Advertising*. He is now at Google.
- Daniel Heard (Statistics), Ph.D. (April 2014). Dissertation: *Statistical Issues in Agent-Based Models*. He is now at United Services Automobile Association (USAA) in Austen, Texas.
- Eric Vance (Statistics), Ph.D. (June 2008). Dissertation: *Statistical Methods for Dynamic Network Data*. He is now tenured faculty at the University of Colorado Boulder.

Ph.D. committee service at Duke University for Rosy Luo, Laura Gunn, Chong Tu, Christine Kohnen, Jason Duan, Hongxia Yang, Matt Heaton, Xiaojing Wang, Andrew Cron, Shih-Han Chang, Karou Irie, Chris Glynn, Xi Chen, Matthew Johnson, Lu Wang, and Yi (Irene) Ji, Olivier

Binette Balaji Krishnapurum(Statistics); Shaorong Chang, Hui Li, and Balaji Krishnapurum (Electrical and Computer Engineering); Guoxian Zhang (Mechanical Engineering); and Jacob Fisher (Sociology).

Ph.D. committee service for the University of Southampton, the University of Durham, and the University of North Carolina Greensboro.

Ph.D. committee service at Carnegie Mellon University for Kert Viele (nonparametric Bayesian methods), Wilfredo Palme (long-range dependency), Mary Santi (the Rasch model), Alan Rossman (paired comparisons), Sung Ho Kim (tree-structured inference), Mario Peruggio (fractals), Scott Berry (optimal search), and Suraj Rao (feed-forward control for integrated circuit manufacture) in Statistics. I've also served on Ph.D. committees for Michael Palmquist in English, Roemer Alfelor in Civil Engineering, Jeff Hanson in Electrical and Computer Engineering, Woncheol Choi in Mechanical Engineering, Robert Olszewski, Kevin Killourhy and Shing-hon Lau in Computer Science, Larry Xue in Statistics at the University of Pittsburgh, and William Shannon in the University of Pittsburgh School of Public Health.

Diploma research supervision at Cambridge for Benjamin Brown (testing fertility models with 18th century demographic records), Jonathan Jedwab (spatial models for the spread of Chargas' disease), and James Palmer (analysis of pharmacokinetic data).

Master's degree supervisor at Duke in statistics for Zhenyu (Ryan) Tang, Shijia Bian, Yongjian Bi, Kirti Kamboj, Min Jung Park, Eric Su, Emma Xu, and Tong Lin.

Master's degree supervisor at Duke for Jimmy Teng (Economics) and Yu Zeng (Physics). Master's committee service at Carnegie Mellon for Roemer Alfelor in Civil Engineering (detecting railroad track defects); Barbara Hanusa in the University of Pittsburgh School of Public Health (comparing CART and logistic regression for predicting syncope); and Guoxian Zhang in the Duke University Department of Mechanical Engineering and Materials Science.

Undergraduate honors thesis supervision at Carnegie Mellon University for Kert Viele (statistical spacings) and Patrick Aboyoun (forecasting student performance from admissions data). Co-direction of undergraduate senior honors theses for Katy Rashid (spatial distribution of the Irish cholera epidemic, 1832-1834) and Michael Kenny (multimodality and time series structure in the chronology of the establishment of utopian communities in the United States.

Undergraduate honors thesis supervision at Duke University for Ryan Gehring (analysis of online poker play), Amy Oh (Bayesian inference for ion counters in mass spectrometry), Peter Bastian (analysis of drop in traffic fatality rates), Jonathan Cohen (agent-based model for influenza), David Balathazar (FARS data and transportation flow), and Amanda Hascoe (rating systems for computational advertising).

PROFESSIONAL ORGANIZATION MEMBERSHIPS:

American Statistical Association; Biometrics Society (ENAR); Classification Society of North America; INFORMS (terminated 2022); Institute of Mathematical Statistics; Interface (terminated 2021); International Chinese Statistical Association; International Society for Bayesian Analysis; International Society for Business and Industrial Statistics; International Statistical

Institute; Mathematical Association of America (ended in 2021); Royal Statistical Society; Society for Risk Analysis.

OTHER ACTIVITIES:

- Chair, Board of Directors, HRDAG (a non-profit organization that does statistical analysis of human rights data). October 2012 to 2017.
- Chair, Board of Directors, StatAid (a non-profit organization that provides statistical support to groups engaged in promoting international development and human rights). Aug. 2008 to Dec. 2011.
- Member, Scientific Advisory Board, NexGen Metabolomics, Oct. 2010 - 2014.

LEGAL CONSULTING:
I have been deposed three times (risk analysis of pit bulls, discrimination against Hispanics, and the efficacy of an engine additive) and testified once (discrimination against Hispanics).

- Consulting with the City of Buffalo attorneys from Hodgson Russ LLP.
- Consulting with the NAACP Legal Defense Fund and Thomas, Ferguson and Beskind, LLP.
- Consulting with Wheeler Trigg O'Donnell, LLP.
- Consulting with the State of Florida's Office of the Attorney General.
- Consulting with the NAACP Legal Defense Fund and Thomas, Ferguson, and Beskind, LLP.
- Consulting with Marc J. Meister, LLC.
- Consulting with Wheeler Trigg O'Donnell, LLP.
- Consulting with the Baltimore City Police Department.
- Consulting with Hall Jaffe & Clayton, LLP.
- Consulting with Tuggle & Duggins, LLC.
- Consulting with Turrentine Law Firm, on a discrimination case.
- Legal consultant to the District Attorney of Alabama, to the law offices of Williams & Connolly, to Bruce Hake on factors affecting INS appeal hardship appeal decisions, and to Karen Breslin, attorney, regarding the Denver Pit Bull ordinance.

CONSULTING EXPERIENCE:

- Consulting with Sciome, on topic models for PubMed abstracts.
- Consulting with Vanasse Hangen Brustlin, Inc., on statistical methods to improve automobile safety.

- Consulting with MaxPoint Interactive on analysis for computational advertising.
- Consulting with Genome Canada on analysis of genetic/proteomic/metabolomic data on obesity and weight loss.
- Consulting for a mock trial with King Pharmaceuticals, Inc.
- Consulting with Booz Allen Hamilton, Inc.
- Consulting for Denver Health and Hospital Authority.
- Miscellaneous consulting through the Gerson Lerhman Group for Warburg Pincus, the Parthenon Group, and others.
- Consulting on models for drug abuse trends to Purdue Pharma, LLP.
- Academic consultant to the Duke community on projects in teaching metrics, social networks, disease models, cross-national study of human rights data, and others.
- Consultant to the Transportation Research Board of the National Academies.
- Consultant to Metabolon, Inc., and member of its Scientific Advisory Panel.
- Consultant to Research Triangle Institute on statistics in counterterrorism.
- Consultant to Roy Maxion at Carnegie Mellon on statistical issues in computer security.
- Advised Human Rights Watch and the International Criminal Court on statistical properties of their proposed rules for electing judges to the court, so as to ensure a level field for women and third world representatives.
- Various consulting projects at DOT. These include the assessment of disparate impact of baggage security procedures upon minorities for the FAA, power analysis for the FHWA and BTS on the ATS/NPTS survey, survey design work for the Office of Motor Carrier Safety, and support for different DOT administrations in producing the annual performance measures (GPRA) report.
- DARPA Computer Security Program consultant on pattern recognition tools applied to discovery of masqueraders.
- Many consulting projects at NIST, mostly in the Information Technology Laboratory. Projects included assessment of the performances of random number generators and document retrieval systems, building a visualization tool to support use of intrusion detection packages that monitor computer security, and the development of statistical methods for software conformance testing.
- Maryland State Teacher's Association (statistical review of validity and reliability of MSPAP, the Maryland State Performance Assessment Program).
- Academic consulting for the Carnegie Mellon community: work for faculty, students, and staff in English, history, social and decision sciences, psychology, biology, architecture, computer science, chemical engineering, the business school, mechanical engineering, civil engineering, the university administration, and many other departments.

- Consultant to Aspen Systems Corporation, June 1996-October 1996.
- Consultant with the Neonatal Sleep Laboratory at Magee Women's Hospital, Pittsburgh, October 1991-present.
- Consultant with PPG Industries, Inc., June 1992; Sept. 1995; April, 1996.
- Consultant to Wesco, Inc., June-August 1995.
- Consultant with the Center for Drug and Alcohol Abuse Research, Western Psychiatric Institute and Clinic, Pittsburgh, March 1990-March 1995.
- Consultant for the Statistical Center for Quality Improvement; I was the SCQI's chief consultant to the Software Engineering Institute, two divisions of PPG Industries, Inc., and Alcoa, September 1988 - May 1993.
- Consultant to IBM, April 1991-Sept. 1991.
- Consultant for Heinz, Inc., January-June 1990.
- Consultant for DelMonte Foods, Inc., July-August 1986.
- Consultant for the Virginia Polytechnic Institute and State University's Statistical Consulting Laboratory, June 1983 - June 1984 and August 1979 - August 1982.

NAMED, PLENARY AND KEYNOTE LECTURES:

- Keynote, International Webinar on Recent Trends in Statistical Theory and Applications, June 2024.
- Schucany Lecture, Southern Methodist University, April 2024.
- Plenary, Ninth International Conference on Statistics for the 21st Century, Dec. 2023.
- Plenary, Deming Conference, Philadelphia, Dec. 2023.
- Plenary, Nozer Singpurwalla Memorial Conference, George Washington University, Oct. 2023.
- Plenary, International Webinar on Recent Trends in Statistical Theory and Applications, June 30, 2023.
- Keynote, 9th International Workshop on Security and Privacy Analytics, April 2023.
- Plenary, Eighth International Conference on Statistics for the 21st Century, Dec. 2022.
- Deming Lecture, Joint Statistical Meetings, Aug. 2022.
- Plenary, workshop on Common Errors in Statistical Studies, Feb. 2022.
- Keynote, AI and Machine Learning Conference, Dec. 2021.
- Keynote, Seventh International Conference on Statistics for the 21st Century, Dec. 2021.
- Plenary, AISC Conference, Oct. 2021.

- Izzet Sahin Memorial Colloquium, School of Business, University of Wisconsin Milwaukee, April 2021.
- Keynote address, International Conference on Data Analytics for Business and Industry, Bahrain, Oct. 2020.
- David Blackwell Lecture, Howard University, Feb. 2020.
- Keynote talk at the International Conference on Statistical Distributions and Applications, Grand Rapids, Oct. 2019.
- NORC lecture at the National Center for Education Statistics, Sept. 2019.
- Willaim Sealy Gosset Lecture, World Statistics Congress, Kuala Lumpur, Aug. 2019.
- Banquet speech, International Chinese Statistical Association, June 2019.
- Keynote, Spring Research Conference, Virginia Tech, May 2019.
- Keynote address, Korean Statistical Association, Nov. 2018.
- Keynote address, AISC conference, Greensboro, NC, Oct. 2018.
- Plenary, Harris Memorial Symposium on Risk, NCSU, May 2018.
- Langenhop lecture, Southern Illinois University, May 2018.
- Wherry Lecture, Ohio State University, Nov. 2017.
- Keynote speaker, ISI Committee on Risk Analysis Conference, Portalegia, Portugal.
- Keynote speaker, International Conference on Risk Analysis, Northestern Illinois University, May 2017.
- Keynote speaker, Agricultural Statistics Conference, Kansas State University, April 2017.
- Keynote lecture, Conference on Statistical Practice, Feb. 2017.
- Plenary, Conference on Applied Statistics in Defense, Washington, DC, Oct. 2016.
- Keynote address, CLADAG, Sardinia, Oct. 2015.
- Keynote speaker, Statistics for Risk Analysis Workshop, Brunel University, London, May 2015.
- Keynote, Scottish and Northumbrian Statistical Society, May 2015.
- Keynote address, ISBA-2014 Conference, Cancun, Mexico, July 2014.
- Keynote address, UPSTAT Conference, Geneseo, NY, April 2014.
- Keynote address, Florida Chapter of the ASA, at the University of West Florida in Pensacola, February, 2013.
- Plenary lecture at the Conference on Nonparametric Statistics and Statistical Learning, Columbus, OH, May, 2010.

- Keynote lecture at the Probability and Statistics Day, University of Maryland Baltimore County, April 2010.
- Keynote on Computational Advertising, International Society of Business and Industrial Statistics, Stellenbosch, August 2009.
- Keynote on ABMs, Classification Society, St. Louis, June 2009.
- Barnett Lecture, University of Cincinnati, April 2007.
- Plenary talk, Army Conference on Applied Statistics, October 2004.
- Roger Herriot Address at the Washington Statistical Society, November, 2003.

JSM INTRODUCTORY OVERVIEW LECTURES:

- Introductory Overview Lecture on computational advertising, Joint Statistical Meetings, Washington D.C., 2022.
- Introductory Overview Lecture on adversarial risk analysis, Joint Statistical Meetings, Denver, July 2019.
- Introductory Overview Lecture on network modeling, Joint Statistical Meetings, Vancouver, Aug. 2010.
- Joint Statistical Meetings Introductory Overview Lecture on big data, Washington, D.C., Aug. 2009.
- Joint Statistical Meetings Introductory Overview Lecture on transportation statistics, San Francisco, Aug. 2003.

INVITED TALKS:

- International Federation of Classification Societies, Costa Rica, July 2024.
- Department of Statistics, Harvard University, Xiao-Li Meng Lecture Course, July 2024.
- International Statistical Institute's panel on AI, June 2024.
- Joint Research Conference, Waterloo, June 2024.
- *Harvard Data Science Review* Fifth Anniversary Conference, Boston, June 2024.
- International Conference on Projections of Households and Healthy Aging, Beijing, May 2024.
- Wells Fargo Dinner, March 2024.
- Stu Hunter Conference, Rothamsted Experimental Station, March 2024.
- University of Illinois at Chicago Department of Epidemiology colloquium series, Jan. 2024.
- International Conference on Data Science 2023, Chile, Nov. 2023.

- Two invited panels at the Wells Fargo/Temple University Conference, Philadelphia, Nov. 2023.
- Nozer Singpurwalla Memorial Conference, George Washington University, Oct. 2023.
- One invited talk, one invited panel discussion at the Fall Technical Conference in Raleigh, Oct. 2023.
- Four invited talks at the Joint Statistical Meetings, Aug. 2023. Two were memorial sessions (Jim Filliben, Tom Jabine) and two were late-breaking sessions (creating a new statistical institute and large language models).
- World Statistics Congress, Ottawa, July 2023.
- Colloquium, Department of Biostatistics, New York University, May 2023.
- Colloquium, Columbia University seminar series on Probability and Risk, April 2023.
- Colloquium, Rutgers University, April 2023.
- Colloquium, University of Georgia, March 2023.
- Colloquium, Temple University, March 2023.
- Colloquium, Columbia University, Feb. 2023.
- Colloquium, Columbia University, Jan. 2023.
- AISC Conference, University of North Carolina Greensboro, Oct. 2022.
- Colloquium, University of North Carolina Greensboro, Sept. 2022.
- National Academies Workshop on Optimizing Investments for Urban Sustainability Infrastructure, July 2022.
- International Society for Bayesian Analysis, June 2022.
- Colloquium, University of Cape Town, May 2022.
- Colloquium, School of Industrial Engineering, Universidad Diego Portales, April 2022.
- Classification Society, Bucknell University, Nov. 2021.
- Translational Data Analytics Institute Fall Forum, Ohio State University, Nov. 2021.
- BIRS Conference on Computational Advertising, Oct. 2021.
- Society for Risk Analysis webinar series, virtual, Sept. 2021.
- University of Georgia colloquium series, virtual, Aug. 2021.
- Invited panelist, Joint Statistical Meetings, Aug. 2021.
- World Statistics Congress, July 2021.
- Webinar for the ASA Section on Risk Analysis, June 2021.

- Webinar for the Iranian Statistical Society, May 2021.
- Colloquium series, Department of Mathematics, Queen's University, Feb. 2021.
- Colloquium series, Department of Mathematics and Statistics, University of Durham, Jan. 2021.
- Play With Real Data Conference, Dec. 2020.
- ISBIS Meeting, Cochin, Dec. 2020.
- Sixth International Conference on Statistics in the 21st Century, Kerala, Dec. 2020.
- INFORMS, Nov. 2020.
- Unversity of Chicago Colloquium Series, Oct. 2020.
- Purdue University Colloquium Series, Sept 2020.
- AiSC in Toronto, Sept. 2020.
- Conference of Texas Statisticians, virtual, Sept. 2020.
- Seminar on Bayesian Inference in Econometrics and Statistics, virtual, Aug. 2020.
- DIMACS's 30th Anniversary conference, Rutgers, Nov. 2019.
- ISBIS satellite meeting, Kuala Lumpur, Aug. 2019.
- The Lorentz Center program on Agent-Based Models for Public Policy, July 2019.
- Ingram Olkin Social Statistics Workshop on Gun Violence, NISS, June 2019.
- Colloquium, Fudan University, June 2019.
- Colloquium, Chinese Academy of Science, June 2019.
- Colloquium, East China Normal University, June 2019.
- WuFest, Georgia Tech, May 2019.
- Colloquium, Stearns School of Business, New York University, April 2019.
- Colloquium, Oakland University, March 2019.
- Lorentz Center Program on Cyberinsurance, Leiden, March 2019.
- Invited Discussant, Stu Hunter Conference, Milan, Feb. 2019.
- Colloquium, University of California Riverside, Jan. 2019.
- Colloquium, Seoul National University, Nov. 2018.
- Colloquium, Washington University of St. Louis, Sept. 2018.
- Colloquium, Virginia Tech, Aug. 2018.
- Joint Statistical Meetings, Vancouver, Aug. 2018.

- International Association of Statistical Computing meeting, Vienna, Austria, July 2018.
- International Symposium on Business and Industrial Statistics, Athens Greece, July 2018.
- International Society for Bayesian Analysis meeting, Edinburgh, June 2018.
- Joint ASA Statistical Learning and Data Science/Nonparametrics Conference, Columbia, June 2018.
- Colloquium, North Carolina A&T University, May 2018.
- Symposium on Data Science and Statistics, Reston, VA, May 2018.
- University of Cincinnati, April 2018.
- North Carolina Central University, March 2018.
- Universty of Pittsburgh Mathematics Colloquium, Nov. 2017.
- George Washington University, Washington DC, Oct. 2017.
- IBM Watson Research Center, Sept. 2017.
- Joint Statistical Meetings, Baltimore, Aug. 2017.
- World Statistics Congress, Marrakesh, July 2017,
- Data Science and Statistical Visualization, IASC Conference, Lisbon, July 2017.
- Quality and Productivity Research Conference, University of Connecticut, June 2017.
- International Symposium on Business and Industrial Statistics, IBM Research Center, Yorktown Heights, June 2017.
- SAS Colloquium, April 2017.
- University of Southampton Colloquium Series, March 2017.
- University of West Florida Colloquium Series, Jan. 2017.
- University of Connecticut Colloquium Series, Nov. 2016.
- AISC conference, Unversity if North Carolina Greensboro, Oct. 2016.
- Colloquium series, Columbia University, Sept. 2016.
- Joint Statistical Meetings, Chicago, August 2016.
- International Society for Bayesian Analysis meeting, Sardinia, June 2016.
- International Symposium on Business and Industrial Statistics, Barcelona, June 2016.
- Lorentz Center Conference on Adversarial Risk Analysis, Leiden, May 2016.
- SAMSI Summer Program on Games, Risk, Reliability and Decisions, May 2016.
- Social Networks and Health Workshop, Duke University, May 2016.

- Moral Mathematics Conference, Kenan Institute for Ethics, May 2016.
- Conference on Applied Statistics in Defense, George Mason University, Oct. 2015.
- Colloquium Series, University of Georgia, Sept. 2015.
- Joint Statistical Meetings, Seattle, Aug. 2015.
- World Statistics Congress, Rio de Janeiro, July 2015.
- ISBIS Satellite Meeting, University of Campinas, July 2015.
- QPRC Conference, North Carolina State University, June 2015.
- Colloquium Series, Imperial College, London, May 2015.
- Colloquium Series, University of Durham, May 2015.
- Colloquium Series, University of Newcastle, May 2015.
- Colloquium Series, University of Lancaster, May 2015.
- Colloquium Series, University of Cambridge, May 2015.
- Conference on Statistical and Computational Challenges in Networks and Cybersecurity, Montreal, May 2015.
- Worcester Polytechnic Institute Colloquium Series, May 2015.
- IBM T. J. Watson Research Center Colloquium Series, April, 2015.
- Columbia University Colloquium Series, April, 2015.
- St. Olaf Colloquium Series, March, 2015.
- Society for Risk Analysis Annual Meeting, Denver, Dec. 2014.
- Clemson University Colloquium, Dec. 2014.
- Georgetown University Business School Colloquium, Oct. 2014.
- Brigham Young University Colloquium, Provo, UT, Oct. 2014.
- International Conference on Advances in Interdisciplinary Statistics and Combinatorics, Greensboro, NC, Oct. 2014.
- Fall Technical Conference, Richmond, VA, Oct. 2014.
- University of North Carolina at Chapel Hill Psychology Department Colloquium Series, Oct. 2014.
- Purdue University, West Lafayette IN, Sept. 2014.
- Joint Statistical Meetings, Boston, Aug. 2014.
- International Biometrics Conference, Florence, Italy, July 2014.

- Joint meeting of the International Society for Business and Industrial Statistics and the ASA Section on Statistical Learning and Data Mining, Durham, NC, June 2014.
- Transitional workshop of the SAMSI program on Computational Social Science, RTP, NC, May 2014.
- Panelist, Stuart Hunter Conference, Tempe, March 2014.
- Michigan State University Colloquium Series, Feb. 2014.
- Iowa State University Colloquium Series, Oct. 2013.
- World Statistics Conference, Hong Kong, August 2013.
- Joint Statistical Meetings, Montreal, Canada, August 2013.
- CANSI Inaugural Meeting, University of Waterloo, Waterloo, Canada, July 2013.
- International Federation of Classification Societies, Tilburg, The Netherlands, July 2013.
- Conference on Games, Decisions, Risk and Reliability, Kinsale, Ireland, July 2013.
- Conference on Validating Models of Adversary Behavior, Buffalo, NY, June 2013.
- Quality and Productivity Research Conference, Albany, NY, June 2013.
- Iowa State University colloquium series, May 2013.
- DIMACS Conference on Analysis of Information from Diverse Sources, Rutgers University, May 2013.
- Panelist, Stuart Hunter Conference, Chateau Marquette, the Netherlands, March 2013.
- Colloquium, The George Washington University School of Business, March 2013.
- Colloquium, University of Virginia, September, 2012.
- Joint Statistical Meetings, San Diego, August, 2012.
- International Symposium on Business and Industrial Statistics, Bangkok, June 2012.
- Conference on Statistical Learning and Data Mining, Ann Arbor, June, 2012.
- ENAR Meeting, Washington D.C., April, 2012.
- NIH National Institute of Child Health and Human Development, February, 2012.
- NSF Workshop on Science Across Virtual Institutes, Bangalore, December 2011.
- BIRS Workshop: Current Challenges in Statistical Learning, Banff, December 2011.
- Army Conference on Applied Statistics, Cary, October 2011.
- International Statistical Institute, Dublin, August 2011.
- Joint Statistical Meetings, Miami, August 2011.

- Classification Society Meeting, Carnegie Mellon, June 2011.
- SCMA-V Conference on Astrostatistics, Pennsylvania State University, June 2011.
- SAMSI Closing Workshop on Complex Networks, May 2011.
- Interface Meeting, Cary, May 2011.
- ICRA-4 Risk Analysis Conference, Cyprus, May 2011.
- Colloquium at Yahoo!, May 2011.
- Colloquium at the University of California at Irvine, April 2011.
- Colloquium at the University of California at Riverside, April 2011.
- ENAR seminar, Miami, March 2011.
- Seminar at the Los Alamos National Laboratories, Feb. 2011.
- Neyman Colloquium at the University of California at Berkeley, Feb. 2011.
- Colloquium at Google, Feb. 2011.
- Colloquium at the University of California at Davis, Jan. 2011.
- INFORMS Conference, Monterey, Jan. 2011.
- Academia Sinica Workshop on Frontiers in Statistics, Taipei, Dec. 2010.
- Undergraduate colloquium (Wayne Manor) at Duke University, Dec. 2010.
- Lecture to the Cincinnati chapter of the ASA, Nov. 2010.
- Lecture at Proctor and Gamble, Nov. 2010.
- Colloquium at Yale University, Nov. 2010.
- Institute of Homeland Security Solutions Workshop, Nov. 2010.
- Colloquium at the University of Michigan, Oct. 2010.
- Army Conference on Applied Statistics, Oct. 2010.
- Colloquium at the University of Michigan, Oct. 2010.
- Lecture at Computer Science workshop at Carnegie Mellon, Oct. 2010.
- Adversarial Decision Making Workshop at DIMACS at Rutgers, September 2010.
- Colloquium at Pennsylvania State University, September 2010.
- New Researchers Conference, Vancouver, July 2010.
- ISBIS meeting, Portoroz, Slovenia, July 2010.
- CNSTAT Workshop on Innovation in Federal Statistics Agencies, Washington, D.C., June 2010.

- Rey Juan Carlos University colloquium series, Madrid, June, 2010.
- Naval Postgraduate School, April 2010.
- ENAR meeting, March 2010.
- Georgia Tech, February 2010.
- Rutgers University colloquium series, November 2009.
- Man Institute, Oxford University, September 2009.
- International Statistical Institute, Durban, August 2009.
- Joint Statistical Meetings, Washington, D.C., August 2009.
- Games, Decisions, and Risk Conference, George Washington University, May 2009.
- Behavior and Ecology Colloquium Series, Biology Department, Duke, April 2009.
- International Biometric Society, Hannover, March 2009.
- New Researchers Conference, San Antonio, March 2009.
- Radcliffe Networks Conference, Boston, February 2009.
- National Institute of Environmental and Health Sciences, Research Triangle Park, January 2009.
- Department of Statistics colloquium series, University of Missouri, November 2008.
- Algorithms Workshop, DTRA/NSF, Baltimore, November 2008.
- Army Conference on Applied Statistics, Virginia Military Institute, October 2008.
- Yahoo! Research Group, Santa Clara, October 2008.
- Department of Biostatistics Collquium Series, University of North Carolina at Chapel Hill, October 2008.
- Virginia Tech colloquium series, Blacksburg, September 2008.
- Naval Postgraduate School, Monterey, August 2008.
- Joint Statistical Meetings, Denver, August 2008.
- Sloan-Kettering Institute, June 2008.
- Classification Society of North America, June 2008.
- Interface Meeting, May 2008.
- RTI Colloquium, May 2008.
- HEC, Montreal, May 2008.
- Harvard University Biostatistics Colloquium, April 2008.

- Ninth Annual Troy University Information Technology Colloquium, April 2008.
- Centers for Disease Control, March 2008 (two talks).
- University of Georgia, March 2008.
- Kansas Chapter of the American Statistical Association, March 2008.
- Denver Chapter of the American Statistical Association, March 2008.
- The Open University, March 2008.
- University of Edinburgh, Febrary, 2008.
- University of Southampton, February, 2008.
- Statistical Laboratory, University of Cambridge, February, 2008.
- Isaac Newton Institute, February 2008.
- University of Durham, January 2008.
- University of Illinois at Chicago, September 2007.
- International Committee on Statistical Methods in Risk Analysis, Lisbon, August 2007.
- International Statistical Institute, Lisbon, August 2007.
- International Society for Business and Industrial Statistics, Azores, August, 2007.
- International Conference on the Frontiers of Statistics: High Dimensional Data Analysis, Kunming, China, August 2007.
- International Chinese Statistical Association, Raleigh NC, June 2007.
- Flint Math Circle, Kettering University, Flint MI, May 2007.
- Virginia Academy of Sciences, James Madison University, May 2007.
- AAAS/WSS Human Rights Symposium, Washington D.C., May 2007.
- MSRI Statistical Computation in Education Workshop, Berkeley, May 2007.
- Statistics Day, University of Maryland at Baltimore County, April 2007.
- ASA Delaware Chapter, Dover, April 2007.
- Katrina Recovery Conference, New Orleans, April 2007.
- RAND Shortcourse, Santa Monica, April 2007.
- ENAR Invited Panel, Atlanta, March 2007.
- Knowledge Discovery Conference, Sapporo, Japan, March 2007.
- ASA Florida Chapter, Pensacola, February 2007.
- Quantitative Methods in National Defense, Arlington, January 2007.

- INFORMS Conference, Pittsburgh, November 2006.
- Katrina Research Conference, Tulane, November 2006.
- Third Statistics Symposium, George Washington University, October, 2006.
- Syndromic Surveillance Conference, Baltimore, October, 2006.
- Stern School of Business, New York University, October, 2006.
- Carnegie Mellon Colloquium Series, September, 2006.
- ASA Career Development Seminar, Seattle, August 2006.
- International Federation of Classification Societies, Ljubljana, Slovenia, July 2006.
- Workshop on Authorship Attribution, DIMACS, June 2006.
- Statistical Society of Canada, June, 2006.
- Interface Society Meeting, Pasadena, CA, May 2006.
- Workshop on New Ideas in Survey Methodology, April, 2006.
- Colloquium, Tulane University, March, 2006.
- International Conference on Industrial Statistics, Lima, January, 2006.
- Colloquium, St. Olaf's College, December, 2005.
- Risk Analysis is Complex Systems, Iowa State University, October, 2005.
- Colloquium, Virginia Polytechnic Institute, October, 2005.
- Colloquium, Pennsylvania State University, September 2005.
- American Association of Public Opinion Research/Washington Statistical Society, September 2005.
- Pennsylvania State University, September 2005.
- American Statistical Association, Minneapolis, August 2005.
- Spring Research Conference, Park City, Utah, May 2005.
- Census Data for Transportation Planning, Irvine, May 2005.
- ENAR, Austin, March 2005.
- Sixth International Conference on Forensic Statistics, Phoenix, March 2005.
- International Conference on the Future of Statistical Theory, Practice, and Education, Hyderabad, December 2004.
- Statistical Issues in Counterterrorism Workshop, Stern School of Business, New York University, November 2004.

- Department of Biostatistics, Columbia University, November 2004.
- Workshop on data mining, the Fields Institute, Toronto, October 2004.
- COMPSTAT'04, Prague, August 2004.
- Social Sciences Research Institute, Duke University, September 2004.
- SAMSI invited session, Joint Statistical Meetings, Toronto, Aug. 2004.
- International Federation of Classification Societies, Chicago, July 2004.
- SIAM Annual Conference, Portland, July 2004.
- NCSL International, Salt Lake City, July 2004.
- WNAR, Albuquerque, July 2004.
- Southern Research Conference on Statistics, Roanoke, June 2004.
- Interface Conference, Baltimore, May 2004.
- Spring Research Conference, Gaithersburg, May 2004.
- ENAR, Pittsburgh, March 2004.
- Operations Research and Statistics Meeting, Santa Fe, January 2004.
- RTI Fellows Symposium, Research Triangle Park, November 2003 (on Homeland and Health Security).
- M2003 Conference on Data Mining (organized by SAS), Las Vegas, October 2003.
- JISS-2003 (Joint International Summer School) shortcourse on data mining, Lisbon, July 2003.
- Quality and Productivity Research Conference, Yorktown Heights, May 2003.
- George Washington University Colloquium Series, April 2003.
- ENAR Conference, Tampa, April 2003.
- DIMACS/Mitre/NSF Workshop on Disease Modeling and Prediction, McLean, March 2003.
- Interface Meeting, Salt Lake City, March 2003.
- NISS Proteomics Workshop, Research Triangle Park, February 2003.
- FDA Colloquium Series, Rockville, December 2002.
- Goldenhelix Conference on Statistical Methods in Microarray Analysis, Big Sky, Montana, September, 2002.
- Joint Statistical Meetings, New York, August 2002.
- Centers for Disease Control, Atlanta, August 2002.

- Los Alamos Statistics Division Colloquium, July 2002.
- DIMACS Symposium on Mathematical Science Methods for Deliberate Release of Biological Agents, New Brunswick, June 2002.
- C. Warren Neel Conference on Data Mining, Knoxville, June 2002.
- University of Naples, Italy, May 2002.
- DIMACS Workshop on Computational and Mathematical Epidemiology, March 2002.
- Committee on Applied and Theoretical Statistics Workshop on Methods for Monitoring the Safety of Medical Products, Washington D.C., December 2001.
- Information Quality Conference, Baltimore, October, 2001.
- Food and Drug Administration Colloquium Series, Rockville, September 2001.
- International Statistical Institute, Seoul, August 2001.
- Conference on Performance Measurement in Government, June 2001.
- Washington Statistical Society, May 2001.
- Institute of Transportation Engineers, Princeton University, May 2001.
- Performance Institute at Gallaudet University, April 2001.
- Alcohol, Tobacco, and Firearms Performance Workshop, January 2001.
- Johns Hopkins University School of Public Health Colloquium Series, November 2000.
- Washington Statistical Society, Bureau of Labor Statistics, November 2000.
- The Performance Institute Workshop on the Government Performance Results Act, Washington, D.C., September 2000.
- North American Travel Monitoring Exhibition and Conference, Madison, Wisconsin, August 2000.
- Workshop on Consensus Methods in Phylogeny, Namur, Belgium, July 2000.
- Joint Research Conference 2000 (American Society for Quality Control, Institute of Mathematical Statistics, and American Statistical Association Section on Physical and Engineering Sciences), Seattle, June 2000.
- Columbia University Workshop on Model Selection And The Bootstrap, April 2000.
- University of Maryland Department of Mathematics Colloquium Series, April 2000.
- National Academy of Public Administration, Washington, D.C., March, 2000.
- George Washington University Department of Statistics Colloquium Series, March 2000.
- Washington Statistical Society, Bureau of Labor Statistics, February, 2000.
- Fifth Army Conference on Applied Statistics, West Point NY, October 1999.

- Applied Stochastic Models and Data Analysis-99, Lisbon, Portugal, June 1999 (invited talk and shortcourse).
- 16th IEEE Instrumentation and Measurement Conference, Venice, May 1999.
- University of Waterloo IIQP Conference on Large Data Sets, May 1999.
- George Mason University Statistics Colloquium, March 1999.
- Drug Information Association conference on software validity in clinical trials, September 1998.
- Conference on the Interface of Computer Science and Statistics, May 1998.
- University of Maryland at Baltimore County Colloquium Series, April 1998.
- University of Waterloo IIQP Colloquium Series, November 1997.
- SRI Intrusion Detection Workshop, July 1997.
- DIMACS Workshop, Rutgers University, May 1997.
- Department of Mathematics Colloquium Series, Bucknell University, November 1996.
- Department of Mathematics Colloquium Series, University of Louisville, November 1996.
- Educational Testing Service, October 1996.
- Joint Research Conference on Statistics in Quality, Industry, and Technology, NIST, May 1996.
- American Association for the Advancement of Science, March 1996.
- Queens University Statistics Colloquium Series, November 1995.
- University of Toronto Statistics Colloquium Series, November 1995.
- Dickinson College Colloquium Series, October 1995.
- Winter ASA Meeting, Raleigh, January 1995.
- Annual Meeting of HURIDOCS, Thailand, December 1994.
- Annual Meeting of the ASA, Section on Physical and Engineering Sciences, Toronto, August 1994.
- Annual IMS Meeting, Toronto, August, 1994 (Discussant for the Smoothing and Maximum Likelihood Methods session.)
- Annual Meeting of the Classification Society of North America, June 1993.
- Department of Statistics Colloquium Series, Duke University, October 1992.
- Department of Statistics Colloquium Series, Virginia Polytechnic Institute and State University, October 1992.
- Industrial Statistics Workshop, NISS, November 1991.

- School of Urban and Public Affairs, Carnegie Mellon University, September, 1991.
- Information Science Colloquium Series, George Mason University, June 1991.
- Colloquium Series, NIST, June 1991.
- Department of Statistics Colloquium Series, Harvard University, April 1990.
- American Society for Quality Control Winter Conference, Pittsburgh, March 1990.
- Department of Industrial Engineering and Operations Research, University of Pittsburgh, September 1990.
- Department of Sociology, University of Pittsburgh, October 1990.
- Department of Mathematics and Statistics, University of Pittsburgh, November 1990.
- Department of Mathematical Statistics Colloquium Series, University of Bath, May 1987.
- Gregynog Conference on Mathematical Statistics, April 1987.
- Cambridge Statistical Methods Discussion Group, April 1987.
- Imperial College Conference on Bootstrap Methods in Statistics, March, 1987.
- Department of Statistics Colloquium Series, University of Sheffield, November 1986.
- AAAS symposium on "A Review and Assessment of Human Rights Indices," May 1986.
- Department of Statistics Colloquium Series, University of California, Berkeley, February 1986.
- Annual Meeting of the ASA, Section on Statistics and Social Issues, Reno, August 1985.
- Neyman Colloquium Series, Department of Statistics, University of California at Berkeley, September 1984.